

Preliminary Paper No 18

EVIDENCE LAW: EXPERT EVIDENCE
AND OPINION EVIDENCE

A discussion paper

The Law Commission welcomes your comments on this paper
and seeks your response to the questions raised.

These should be forwarded to:
The Director, Law Commission, PO Box 2590, Wellington
if possible, by Friday, 20 March 1992

December 1991
Wellington, New Zealand

The Law Commission is an independent, publicly funded, central advisory body established by statute to undertake the systematic review, reform and development of the law of New Zealand. Its aim is to help achieve coherent and accessible laws that reflect the heritage and aspirations of New Zealand society.

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Preliminary Paper/Law Commission Wellington 1991

ISSN 0113-2245

This preliminary paper may be cited as: NZLC PP18

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Preface

The Law Commission's evidence reference is succinct and yet comprehensive:

Purpose: To make the law of evidence as clear, simple and accessible as is practicable, and to facilitate the fair, just and speedy judicial resolution of disputes.

With this purpose in mind the Law Commission is asked to examine the statutory and common law governing evidence in proceedings before courts and tribunals and make recommendations for its reform with a view to codification.

The evidence reference needs to be read together with the criminal procedure reference, the purpose of which is:

To devise a system of criminal procedure for New Zealand that will ensure the fair trial of persons accused of offences, protect the rights and freedoms of all persons suspected or accused of offences, and provide effective and efficient procedures for the investigation and prosecution of offences and the hearing of criminal cases.

Both references were given to the Law Commission by the Minister of Justice in August 1989, shortly after the Commission published a preliminary paper on options for the reform of hearsay.

This is the fourth in a series of Law Commission discussion papers on aspects of evidence law. Papers on principles for the reform of evidence law, codification of evidence law and hearsay evidence were published in April of this year. Further papers dealing with topics such as documentary evidence, confessions, evidence of character, conduct and credibility, and privilege will be published as the reference progresses. Some of the topics which relate particularly to criminal evidence - such as confessions, the right to silence and the privilege against self-incrimination - will be considered in conjunction with the work on criminal procedure.

Our aim is to complete our review of core evidence law by the end of 1992. Although this may be an ambitious undertaking, we believe it is preferable to deal with the whole topic in as short a period as possible rather than undertake a process of piecemeal reform. Dealing with the topic as a whole also helps to ensure that our proposals on each aspect are consistent. The result should be more coherent reform.

Our work on evidence law is being assisted by an advisory committee comprising the Hon Mr Justice R C Savage, Judge J D Rabone, Mr L H Atkins QC and Dr R S Chambers. Mr G C Thornton QC, legislative counsel, is helping with aspects of drafting and Mrs G Te Heu Heu is acting as a consultant on issues relating to te ao Maori.

As the reference progresses, the Commission will be consulting a wide range of people with special interest in evidence law. In respect of this paper the Commission has received considerable assistance both from members of the legal profession and members of other professions who are frequently involved in giving expert evidence. We would like in particular to acknowledge the valuable assistance of the following people: Mr A N Frankham and Mr J Hagen, chartered accountants; Dr D L Mathieson QC and Mr J Billington, barristers; Mr K S Odlin, consulting engineer, of the Interprofessional Committee on Liability; Mr P N Priest, Ms C Rush, and Mr J Williams, psychologists; Dr G J Sutherland of the DSIR and the president of the Australia and New Zealand Forensic Science Society; Mr B W Robertson and Professor G A Vignaux of Victoria University of Wellington; and Ms J Lewin of the Department of Justice.

The Commission hopes that each discussion paper will draw a wide response. Since the law of evidence is a subject of such practical significance, we particularly wish to consult and take account of the views of all those with an interest in the topic. We therefore ask that readers express their views at this and later stages of the project.

This paper does more than discuss the issues and pose questions for consideration. It includes our provisional conclusions following extensive research and considerable preliminary consultation. It also includes a complete draft of the opinion evidence provisions for a code and a commentary on them. The intention is to enable detailed and practical considerations of our proposals. We emphasise that we are not committed to the views indicated and our provisional conclusions should not be taken as precluding further consideration of the issues.

Submissions or comments on this paper should be sent to the Director, Law Commission, P O Box 2590, Wellington, if possible, by Friday 20 March 1992. Any initial inquiries or informal comments can be directed to Paul McKnight (0-4-473 3345).

Summary of Views

- 1 At common law the general rule is that witnesses may not give their opinion in evidence. Rather a witness must give evidence of facts; and it is for the fact-finder, whether judge or jury, to draw inferences or come to conclusions based on the factual evidence. There are, however, two exceptions to this rule. The first exception provides that properly qualified *expert* witnesses may give opinions on matters within their field of expertise, subject to the limitations imposed by the common knowledge ultimate issue rules. The second exception applies to non-expert opinion. It permits any witness to give an opinion if it is a compendious way of describing facts that the witness personally perceived, *and* if facts upon which the opinion is based cannot expediently be stated without expressing an opinion (for example an observation concerning the speed of a car). (*Chapter I*)
- 2 The opinion rule is based on the distinction between fact and opinion. This distinction is impossible to draw with complete clarity: fact and opinion are best thought of as extremes of a continuum. The assumption underlying the distinction is that factual evidence is more reliable than opinion evidence. The rule is intended to achieve the two purposes of preventing the function of the fact-finder from being usurped and preventing the time of the court from being wasted in hearing valueless evidence. We consider that in several respects the policies underlying the opinion rule are valid in that opinion evidence may on occasions be unreliable or superfluous. In terms of a code, such evidence can be classified as unfairly prejudicial, misleading, confusing or time-wasting and excluded under the general exclusionary power. Because of this it may be that an opinion rule is not essential. For clarity and other reasons, however, we favour retention of a rule excluding opinion evidence, but with exceptions and special procedural rules. (*Chapters II and III*)
- 3 In the case of non-expert opinion evidence, we consider that the common law has operated in a flexible and generally satisfactory way. We therefore favour incorporating the substance of the common law rule in the code. We propose that non-expert opinion evidence should be admissible if it will help the witness to communicate or help the court or jury to understand what the witness saw, heard or otherwise experienced. (*Chapter IV*)
- 4 The most important exception to the opinion rule concerns expert opinion evidence. This exception covers evidence from a wide range of witnesses - from truck drivers giving evidence about standards of driving competence to forensic scientists giving evidence about DNA identification.

The first condition for the admissibility of expert opinion evidence is that the expert must be properly qualified to give evidence on the issue. At common law, experts are qualified by having specialised knowledge or skill gained from study, training or experience. The qualification requirement is based on an evaluation of the reliability of the evidence and has operated well. We would retain the qualification requirement as the essential basis for the admission of expert opinion evidence.

At common law further conditions for the admissibility of expert opinion evidence are imposed by the ultimate issue rule and the common knowledge rule. Both these rules exclude opinion evidence by reference to particular issues in the case. Neither rule, however, directly addresses the reliability and value of the expert testimony. Thus both rules on occasions exclude reliable and helpful expert testimony which ought to be admitted. The Commission proposes that both these issue-based tests be abolished and replaced with an evidence-based test which requires specific consideration of the value and reliability of the expert opinion evidence.

Two options are proposed:

- 1 *the Australian approach* which, as an exception to the opinion rule, allows the admission of properly qualified expert opinion evidence, subject to the general exclusionary power as a quality control;
- 2 *the United States Federal Rules approach* which, as an exception to the opinion rule, allows the admission of properly qualified expert opinion evidence *which would help the court or jury to determine the facts in a proceeding* (the helpfulness rule), with the general exclusionary power operating in residual cases.

If the helpfulness rule is adopted it will rarely be necessary to invoke the general exclusionary power. Indeed the two rules overlap and it can be argued that the helpfulness rule is unnecessary. We, however, provisionally favour inclusion of the helpfulness rule as an *additional* safeguard applying to expert opinion evidence. The helpfulness rule appears in the United States to have provided a clear and workable basis for excluding unsatisfactory opinion evidence. It also avoids over-use of the general exclusionary power.

Whichever approach is adopted, decisions concerning the admissibility of expert opinion evidence will be able to be based upon an assessment of all the relevant aspects of the evidence. Expert opinion will be evaluated for its reliability, its objectivity, how much information it provides for the jury or judge, and any other relevant factors. The aim is to deal effectively with

the concerns about the quality of expert evidence which underlie the common law rules, without the rigidity of those rules. (*Chapter V*)

- 5 At common law there is a rule requiring that expert opinion evidence must be based on factual evidence which is both admissible and actually before the court. In practice, the factual basis of opinion testimony is always an important component in the assessment by the fact-finder of the helpfulness and reliability of the testimony. We do not, however, consider it is necessary to carry the common law rule into a code. The helpfulness rule (or the general exclusionary power) will enable the court to exclude opinion evidence without an adequate factual basis. (*Chapter VI*)
- 6 Although we do not suggest any special rules on the subject, the Commission draws attention to the importance of probability theory in relation to expert evidence. Scientific evidence, in particular, is often expressed in the form of probabilities and a thorough understanding of the nature and proper use of evidence in probability form is frequently necessary for the proper evaluation of expert evidence. (*Chapter VII*)
- 7 The best use of expert evidence will not be achieved without procedural reform in addition to reform of the evidential rules. The Commission considers the following procedural reforms are required.
 - The circumstances in which the court has power to appoint an expert should be expanded. Although court experts should not be the primary source of expert testimony, the court should be able to appoint experts where it considers this would be of value. In a criminal case, however, the court should not appoint an expert over the objections of the accused.
 - It should be mandatory for parties in all cases, civil and criminal, to disclose in advance of trial the substance of any expert evidence they propose to offer. Prior notification achieves two major aims. It allows all parties to a proceeding time to investigate and evaluate the expert evidence, and if necessary find their own expert witness. It also allows refinement of the issues arising out of the expert evidence, thus saving the time of the parties and the court.
 - Subject to the direction of the court, experts should be able to present oral or written reports to the court rather than answer questions. As well, they should, in giving their evidence, be able to use aids to communication like diagrams, charts and video and computer presentations. (*Chapter VIII*)

- 8 For reasons of efficiency and to provide for urgent cases, the Commission provisionally proposes that opinion evidence which is offered in interlocutory proceedings should be admitted, with the protection that the party offering the opinion must also offer evidence of the grounds on which the opinion is held. (*Chapter IX*)

Summary of Questions

Chapter III:

- 1 Should the opinion rule be retained as an exclusionary rule subject to specific exceptions?

Chapter IV:

- 2 When should non-expert witnesses be able to give opinion evidence in proceedings?
- 3 Which of the alternative drafts of the admissibility rule relating to non-expert opinion evidence is preferable?

Chapter V:

- 4 When should expert opinion evidence be admissible?
- 5 We propose two options for reform of the rules relating to the admissibility of expert opinion evidence: the Australian approach and the Federal Rules (helpfulness) approach. Which is preferable?

Chapter VI:

- 6 Can the problem of expert opinion evidence with an inadequate factual basis be dealt with satisfactorily without a special rule, whichever of the options for reform is chosen?

Chapter VII:

- 7 Is evidence in the form of probabilities well used by the courts?
- 8 Is it possible or desirable to formulate legal rules based on the laws of probability to regulate evidence (and in particular scientific evidence) given in the form of probabilities?

Chapter VIII:

- 9 Should the court be empowered as a matter of general trial procedure to appoint expert witnesses? Under what circumstances should the court appoint an expert witness? In criminal cases should the appointment of a court expert require the consent of the defendant?

- 10 Should the parties be obliged to notify each other of their expert evidence? When should they have to notify? How much of the detail of the evidence should they have to notify? Should the notice requirements apply to the defence in criminal cases? What sanction should be applied if the evidence is not notified (for example, exclusion, comment, costs awards)?
- 11 How should experts give evidence? Subject to the direction of the court, should they be able to read a written report or give an oral narration of their evidence? Should they likewise be able to use visual aids and other aids to communication?

Chapter IX:

- 12 Should all opinion evidence offered in interlocutory proceedings be admissible as long as the party offering the evidence also offers evidence of the grounds on which the opinion is based? Or should a rule similar to the present r 252 of the High Court Rules be retained?

The Opinion Rule and its Problems

1 The opinion rule requires that, in general, witnesses should not express opinions when giving evidence. Rather they should confine themselves to the facts. The rule, however, is subject to very broad exceptions. Thus, expert opinion evidence is generally admissible, subject to certain limitations, and non-expert, or lay, opinion is also often admissible. This discussion paper deals with all aspects of the opinion rule and its exceptions.

2 As a basic proposition, the opinion rule prevents witnesses from giving their opinion as evidence of the truth of the opinion stated. "Opinion" in this context has come to mean drawing inferences or conclusions from the observed facts to which the witness can testify.¹ Facts are for the witness to state, but inferences are for the judge or jury alone to draw.

3 The most important exception to the opinion rule concerns the opinions of experts. Witnesses who are qualified as experts may generally give their opinion where the matter is within their field of expertise.² This exception is necessary because experts, having special knowledge, are able to draw inferences which might not be readily apparent to the judge or jury. Indeed, in practice expert opinion evidence has an important place in our forensic process and a wide range of expert witnesses are commonly called to give evidence on many different subjects (examples are given in para 34). A second exception applies to non-expert witnesses. They may give their opinions when it is impossible to provide a detailed account of all the facts underlying the opinion. For example, a bystander's testimony about the speed of a passing car is generally an opinion - but how else could such testimony be given?³

4 Most of the difficult issues arising from the opinion rule relate to expert evidence and it will be the major focus of this paper. To deal effectively with this topic it is necessary to discuss related procedural questions such as: how should expert witnesses give evidence, who should have the responsibility for finding and calling expert witnesses, and what pre-trial procedures are necessary to promote the best use of expert evidence? Other rules of evidence besides the opinion rule will also from time to time be relevant, especially the hearsay rule.

1 *Cross on Evidence* (Mathieson, 4 NZ ed, 1989) 426.

2 *Cross* (Mathieson) 426, 429-435.

3 *Cross* (Mathieson) 426, 435-436.

5 As the common law stands at present there are both theoretical and practical problems with the opinion rule. For example, although the opinion rule (or the relevant exception to it) has been applied in a practical and flexible way to the testimony of non-expert witnesses, technical and overly rigid sub-rules have developed in respect of expert testimony. In particular, expert evidence is generally inadmissible when it goes to the ultimate issue, or when it concerns a matter of common knowledge.⁴ These two sub-rules are intended to deal with the real dangers caused by unfairly prejudicial, misleading or unreliable expert evidence, but they focus on the subject matter of the evidence, rather than its reliability and helpfulness in the case. As a result, they sometimes fail to prevent unsatisfactory evidence from being introduced, or alternatively they require the exclusion of evidence which should be admitted.⁵ Problems also arise because the law has not developed wholly satisfactory procedural rules for dealing with the evidence of experts. For instance, expert evidence is often highly technical, but the rules do not always provide the opposing party with adequate opportunity to investigate and test the evidence.⁶ Moreover, expert evidence is often presented as independent and detached, yet the appearance may deceive and the evidence may be highly partisan.⁷ These problems, and others dealt with in more detail later in this paper, lead us to the conclusion that, although in some areas the law operates satisfactorily, in others its inadequacies and technicalities create serious potential for injustice, as indeed relatively recent events, such as the "Birmingham Six" case in England, have demonstrated.⁸

6 It is therefore our view that the law on opinion evidence requires a detailed examination. The first task in this review is a consideration of the theoretical and policy basis of the rule. This is the subject of the next chapter.

4 *Cross (Mathieson)* 427-428, 437-442.

5 See paras 39-44, 49-54.

6 See paras 99-100.

7 See paras 88-89.

8 The "Birmingham Six" were a group of people convicted of an IRA bombing in Birmingham in 1974. At the trial scientific expert evidence was given concerning a test which purported to establish that some of the accused had recently handled nitroglycerine. In fact, the test would have registered a positive result if the accused had only handled soap, or a particular type of adhesive tape, or a number of other items. The test should have been regarded as preliminary rather than conclusive. In addition, the test was not performed under proper temperature conditions and had been modified by the scientist who conducted it; and the prosecution withheld from the defence evidence of positive results of a similar test which had been carried out by another scientist on different people but discarded because those people had been handling adhesive tape which could have given the result. The case is, therefore, an example of the law failing to guard against the dangers of expert opinion evidence and the Six were recently released after a series of hearings in the Court of Appeal. It should also be noted that in addition to the forensic evidence there was other important evidence in the form of confessions. On appeal, expert evidence relating to the police notes of the confessions showed they had not been made contemporaneously, but some time after the interview. See: Editorial, "Unappealing" [1991] NLJ 373; Hilliard, "Blessed with Hindsight" [1991] NLJ 393; *The Times*, Friday, 15 March 1991, 1; Giles, "Good Impressions" [1991] NLJ 605; Price, "Forensic Science needs Open Minds" *New Scientist*, 20 July 1991.

The Basis of the Opinion Rule

THE DISTINCTION BETWEEN FACT AND OPINION

7 The opinion rule is based on the distinction between fact and opinion. But this distinction, while commonly made in everyday life, is on close analysis often elusive. In our Principles Paper we referred to the problem of the nature of knowledge.⁹ The problem, simply stated, is whether we ever objectively know facts, or whether our knowledge is limited to subjective opinion. The opinion rule is based on the premise that some testimony is obtained by direct observation and is therefore factual, while other testimony is obtained by inference from observation and is therefore opinion. On this premise, examples of fact are: that a particular house is blue; that Bob said to Mary, "I slept until nine this morning"; that a testator has died. By contrast, examples of opinion are: that the bullet taken from the chest of a dead person came from a certain kind of gun; that a given drug causes cancer; that glass found in a defendant's clothes came from a particular window.

8 The law of evidence also recognises that some testimony is in an intermediate category. Speed, distance, identity and perhaps intoxication are all matters on which a witness cannot give fully detailed factual testimony. It is not humanly possible to state all the factual matters on which the evidence is based. Opinions on these matters are admitted on the ground that such information can only be communicated in this way. When giving this kind of testimony, witnesses are said to be compendiously expressing their knowledge of the facts in the form of an opinion.¹⁰

9 The distinction between fact and opinion has been widely criticised. Wigmore says:

[N]o such distinction [between fact and opinion] is scientifically possible. We may in ordinary conversation roughly group distinct domains for "opinion" on the one hand and "fact" and "knowledge" on the other; but as soon as we come to analyze and define these terms for the purpose of that accuracy necessary in legal rulings, we find that the distinction vanishes, that a flux ensues, and that nearly

9 Law Commission, *Evidence Law: Principles for Reform* (NZLC PP13, 1991) paras 33-38, 60-61.

10 *Cross* (Mathieson) 435-436.

everything which we choose to call "fact" either is or may be only "opinion" or inference.¹¹

Similarly, in the words of Thayer:

In a sense all testimony to a matter of fact is opinion evidence; ie, it is a conclusion formed from phenomena and mental impressions. Yet that is not the way we talk in courts or in common life. Where shall the line be drawn? When does a matter of fact first become a matter of opinion?¹²

10 Those quotations show the theoretical difficulty in making the distinction between fact and opinion. At a practical level the distinction between fact and opinion also raises problems. The assumption underlying the distinction is that factual evidence is more reliable than opinion evidence as a basis for decision-making, yet it is clear that this assumption is not always justified. Sometimes "factual" testimony is unreliable because of the fallibility of human perception and memory. For example, the colour of a house may be distorted in failing light, or a witness may mishear the words which were spoken. Identification in criminal cases often proves to be suspect because of human failure to perceive and remember clearly. On the other hand, the most complex opinion can on occasion be very reliable because it is formed and expressed with great care.¹³ For example, an expert's evaluation of DNA evidence in a paternity case, if based on rigorous scientific procedures and expressed precisely, may be extremely reliable.¹⁴ Yet it is opinion (though admissible under an exception to the rule). Such difficulties, do not, however, mean that the opinion rule serves no valid purposes. Of these purposes, we first consider the two which are commonly said to underlie the rule.

COMMON JUSTIFICATIONS FOR THE OPINION RULE

11 If the distinction between fact and opinion is difficult, why does the law make it? The rule is frequently said to have two major justifications: it prevents the fact-finding function of the court or jury from being usurped, and it excludes testimony which would be time-wasting.¹⁵

11 7 Wigmore, *Evidence* § 1919 (Chadbourn rev, 1978).

12 Thayer, *A Preliminary Treatise on Evidence at the Common Law* (1898) 524.

13 The reliability of an opinion may of course be dependant on the reliability of its factual basis: see Chapter VI.

14 Although DNA comparison can *exclude* paternity, it cannot establish for certain that a person is the father of a child. The positive assessment will always be in the form of a probability. However, the probability can be very high, depending on the circumstances. See Dodd, "DNA Fingerprinting in Matters of Family and Crime" *Nature* vol 318 at 506, 12 December 1985. See also the articles collected in the bibliography on DNA.

15 Australian Law Reform Commission, *Evidence: Interim Report* (1985) vol 1, para 732.

Usurping the function of the fact-finder

12 Although often expressed as protecting the function of the jury, the rule equally applies to opinion evidence in a judge-alone case. The aim is to prevent witnesses making inferences or drawing conclusions from the facts. Those functions are regarded as the exclusive province of the fact-finder.

13 Wigmore criticises this justification on the grounds that the witness

could not usurp [the jury's function] even if he would, because the jury may still reject his opinion and accept some other view, and no legal power, not even the judge's order can compel them to accept the witness' opinion against their own.¹⁶

Wigmore's criticism indicates that it is more accurate to say that the true concern of the rule is that the fact-finder may be over-influenced by opinion evidence, or may take an unreliable opinion at face value without thoroughly investigating and evaluating it. These are valid concerns: the potential prejudice or misleading effect of unreliable opinion is a danger which necessitates safeguards, including restrictions on the admissibility of opinion evidence.

14 It needs to be remembered, however, that the normal means of dealing with relevant though possibly unreliable evidence is not exclusion, but cross-examination and the calling of other witnesses to contradict the evidence. On that basis juries and judges can evaluate the reliability of the evidence for themselves. On many occasions, therefore, proper cross-examination and calling contradictory witnesses will fully test opinion evidence - especially if procedural reforms are instituted to enhance and facilitate the advance investigation of opinion evidence.¹⁷ However, cross-examination and calling other witnesses can consume substantial time. Where that is not warranted by the probative value of the evidence, it may be preferable to exclude it.

Time-wasting

15 Indeed time-wasting was said by Wigmore to be the true basis of the opinion rule.¹⁸ Where a witness is merely drawing inferences or stating conclusions which the jury or judge could just as easily make, that testimony adds nothing of value to the information before the fact-finder and is time-wasting. On this view, the rule simply excludes superfluous or repetitive evidence which would not assist the fact-finder.

16 7 Wigmore, *Evidence* § 1920 [emphasis original].

17 See Chapter VIII.

18 7 Wigmore, *Evidence* §§ 1918, 1929.

16 However, the rule also excludes, at least on some occasions, opinion evidence which is thoughtful and soundly reasoned, and therefore valuable. The exclusion of such evidence deprives the fact-finder of potentially useful information. Nevertheless much opinion evidence (especially from lay witnesses) will be superfluous, though this can only be judged on a case by case basis. As a result, Wigmore thought that the opinion rule could be readily replaced with a discretion to exclude time-wasting evidence.¹⁹

CONCLUSION

17 An examination of the bases for the opinion rule makes it apparent that in reforming the rule both practical and theoretical problems require consideration. Since all testimony is on a continuum from fact to opinion and it is impossible to select an arbitrary cut-off point, the purposes to be served by the opinion rule need to be clearly identified. In considering reform, the first requirement is to evaluate, as we have above, the justifications said to underlie the opinion rule. It is next necessary to consider the options for reform of the rule in light of its true purposes.

19 Wigmore linked the discretion to a rule requiring personal knowledge: 7 Wigmore, *Evidence* § 1929.

III

Reform of the Opinion Rule

18 From our examination of the concerns underlying the opinion rule we have concluded that there are two paths for reform. They are:

- *Abolition.* It would be possible to abolish the opinion rule entirely. Under this option cross-examination and calling other witnesses to contradict the evidence would play their usual roles in testing opinion evidence. In addition, the general power to exclude evidence which is unduly prejudicial, misleading, confusing or time-wasting could be used to exclude opinion evidence considered too unsatisfactory to admit.²⁰
- *Retention with reform.* Alternatively, it would be possible to retain the basic rule excluding opinion evidence, but to deal with the problems the rule causes by rationalising the exceptions, especially in the area of expert evidence. This option could also be linked with procedural reform.

19 On balance our view is that the rule should be retained because it serves a valuable purpose, but that, in relation to expert opinion evidence, it requires substantial reform. That was the conclusion reached by the Australian Law Reform Commission,²¹ and it is also the approach embodied in the Federal Rules of Evidence and the Canadian Law Reform Commission's draft code. Our reasons for this conclusion follow.

20 First, the rule performs a positive function. It prevents time-wasting or superfluous evidence and compels witnesses to place before the court as much factual detail as possible. It also prevents witnesses from compendiously describing a situation in the form of an opinion when it would be better evaluated by the court if described in more detailed factual terms.²² Thus the rule improves the quality of the information before the court and enhances the ability of the court to assess the information.

20 See Scottish Law Commission, *Draft Evidence Code (First Part)* (1968) 18-24, for a variation of the abolition option.

21 Australian Law Reform Commission, *Evidence: Interim Report* (1985) vol 1, para 738. An Evidence Bill is currently before the Australian Parliament substantially based on the ALRC Report. See also New South Wales Evidence Bill cl 61 (currently before the Parliament of New South Wales).

22 Zuckerman, *The Principles of Criminal Evidence* (1989) 59-61.

21 Secondly, cross-examination and calling other witnesses will not always expose the weakness of opinion testimony. Some witnesses, either expert or non-expert, may have a false air of authority or give evidence which is misleading with the result that the fact-finder gives the opinion entirely inappropriate weight. And, in any case, the evidence may have such little value that it is simply a waste of time to admit and rebut it. Sometimes, therefore, exclusion may be called for.

22 Thirdly, if the opinion rule were abolished the only basis for excluding relevant but unsatisfactory opinion evidence would be the general power concerning unfairly prejudicial, confusing, misleading, or time-consuming evidence. This, however, would place a heavy emphasis on the general exclusion and we are reluctant to treat that power as the sole basis for exclusion of opinion evidence when more specific provisions can be formulated.²³ Although the concerns which underlie the general exclusionary power are in many respects the same as those which underlie the opinion rule, we think it is preferable to have specific rules which deal directly with opinion evidence and its problems. This should make an evidence code easier to understand and use.

23 Though we favour retention of the rule and accept the need to exclude some opinion evidence, we emphasise the importance and value of helpful opinion evidence. Such evidence assists the fact-finder by providing information which otherwise would not be available.

24 We add that retaining a rule which excludes opinion evidence but has exceptions which are based on principle is consonant with the policies or purposes which we identified in our earlier Principles and Codification Papers. In particular, it is consistent both with the rational ascertainment of facts and with fairness to the parties to allow opinion testimony where it is helpful, but to exclude it when it is unreliable and unhelpful. In addition, it is consistent with the policy of expeditious determination of proceedings and elimination of unjustifiable expense to exclude superfluous opinion evidence which is of no evidential value, or which could be better given in more detail as factual evidence.²⁴

25 To summarise, our conclusion is that the best reform option is to retain the rule which excludes opinion evidence but reformulate the exceptions. The exceptions should clearly express the basic principles so that, as problem cases arise, the courts will be able to deal with them in a consistent and practical way. We also consider that, in appropriate cases, procedural reforms are necessary to enable the parties fully to investigate and test any opinion testimony tendered by

23 See also Law Commission, *Evidence Law: Hearsay* (NZLC PP15, 1991) para 21.

24 Law Commission, *Evidence Law: Principles for Reform* (NZLC PP13, 1991) Chapter IV; and see Law Commission, *Evidence Law: Codification* (NZLC PP14, 1991) draft s 1 at 19, paras C2-C7.

an expert witness. The following chapters consider the various issues which arise and set out our specific proposals for reform.

Question:

- 1 Should the opinion rule be retained as an exclusionary rule subject to specific exceptions?

IV

Non-expert Opinion Evidence

26 The opinion rule as it applies to witnesses who are not experts presents no major problems. In practice the common law rule has been applied pragmatically and has not become encrusted with technicalities. We think the common law approach should be carried into the code.

27 In *Cross on Evidence* it is said, with respect to lay opinion, that:

When, in the words of an American Judge, "the facts from which a witness received an impression were too evanescent in their nature to be recollected, or too complicated to be separately and distinctly narrated", a witness may state his opinion or impression. He was better equipped than the jury to form it, and it is impossible for him to convey an adequate idea of the premises on which he acted to the jury.²⁵

28 This passage demonstrates two prerequisites for admissibility of lay opinion evidence: the witness must be stating a conclusion drawn from something personally perceived; and an opinion must be the only adequate mode in which to communicate the information to the fact-finder. At common law a list of permissible subjects for lay opinion has developed. Opinions on identity, speed, distance, and sometimes intoxication and emotional state are admissible. But the list is always flexible and the categories are not closed.

29 The Evidence Bill currently before the Australian Parliament²⁶ has both of the common law requirements. In cl 84 the exception to the opinion rule is formulated as follows:

The opinion rule does not apply to evidence of an opinion expressed by a person if:

25 *Cross (Mathieson)* 435.

26 This Bill was introduced on 16 October 1991 and is substantially based on the Australian Law Reform Commission's *Evidence Report* (1985). The Bill and the ALRC Report, along with the United States Federal Rules of Evidence and the Canadian Law Reform Commission's draft Evidence Code are our principal sources of reference (see Law Commission *Evidence Law: Codification* (NZLC PP 14, 1991) para 2). The ALRC recommendations have also been substantially carried through into the New South Wales Evidence Bill cl 62.

- (a) the opinion is based on what the person saw, heard or otherwise perceived about a matter or event; and
- (b) evidence of the opinion is necessary to obtain an adequate account or understanding of the person's perception of the matter or event.

30 The Canadian Law Reform Commission draft code²⁷ and the United States Federal Rules of Evidence both have a similar first limb, but provide a broader second limb. In the Federal Rules the opinion must be "helpful to a clear understanding of the witness' testimony or the determination of a fact in issue" (r 701). The Canadian formulation is slightly different, requiring the opinion to be "helpful to the witness in giving a clear statement or to the trier of fact in determining an issue" (s 67). In effect, both these provisions allow the admission of non-expert evidence whenever it would help to communicate the evidence of the witness to the court or jury.

31 In our view, a rule which permits opinion evidence when it will help the witness to communicate or help the court or jury to understand what the witness saw, heard or otherwise experienced is safe and satisfactory. Under such a test the judge will be able to exclude opinion evidence which can be inferred by the jury, but allow the reception of opinion evidence concerning matters perceived or experienced by the witness which cannot otherwise be conveyed with clarity. Using this test, the pragmatic approach to the admissibility of this kind of evidence, which is already part of our law, will continue. Lay opinion based on personal perception will be received when it adds information or clarity.

32 At this stage the Commission puts forward two options for a code rule concerning non-expert opinion evidence. Provisionally, we prefer the first of these options, and have included that in our draft provisions. However we invite comment on which option is preferable.

Option One

3 Admissibility of non-expert opinion evidence

A witness may give opinion evidence in a proceeding if the opinion evidence will help the witness to communicate, or the court or jury to understand, what the witness saw, heard or otherwise experienced.

27 Contained in Canadian Law Reform Commission, *Report on Evidence* (1975).

*Option Two***3 Admissibility of non-expert opinion evidence**

A witness may give opinion evidence in a proceeding if the opinion

- (a) is based on what the witness saw, heard or otherwise experienced; and
- (b) is helpful to the clarity of the evidence of the witness.

Questions:

- 2 When should non-expert witnesses be able to give opinion evidence in proceedings?
- 3 Which of the alternative drafts of the admissibility rule relating to non-expert opinion evidence is preferable?

V

Expert Opinion Evidence

33 Experts may give their opinions under a general exception to the opinion rule, and the term "expert" is widely defined to include any witness with specialised knowledge or skill. There are, however, a number of rules which exclude expert opinion. This chapter deals with those rules and discusses how best to control the admissibility of expert testimony.

34 There are many varieties of expert witness who may be called to give a wide range of different types of evidence. The rules must deal effectively with all these disparate kinds of evidence. The following examples serve to emphasise the wide ranging nature of expert evidence:

- an engineer who testifies to the soundness of the design of a bridge in a civil action for negligence;
- a forensic scientist who testifies to the probability that a sample of DNA taken from an accused matches a sample taken from under a murder victim's fingernails;
- a psychologist who testifies that a child is exhibiting characteristics associated with sexual abuse;
- a truck driver who testifies about standards of driving competence in a case involving negligent driving;
- a personnel agent who testifies about the period of reasonable notice required to terminate a contract of employment;
- a valuer who testifies about the market value of a house or a business;
- an accountant who testifies about quantum of economic loss in a civil damages claim.

QUALIFICATION

35 The most important rule about the evidence of experts is that the expert must be qualified to give the proposed evidence. Put another way, no witness may give opinion evidence calling for a particular kind of expertise unless the witness in fact has that expertise. Under New Zealand law the qualification of

experts is a matter for assessment in the circumstances of the individual case.²⁸ In our view the rule operates satisfactorily. The question is: does the witness have some specialised knowledge or skill gained from a course of training or practical experience, or both? A recent unreported decision provides a good example of the way the rule works. In *R v Stead*,²⁹ the defence objected to a doctor being called as an expert in psychiatry to give evidence regarding the accused's sanity. The doctor had graduated as a medical practitioner and for the previous four years had been a psychiatric registrar in a hospital. However, the doctor had not yet fulfilled the academic or practical requirements necessary to qualify as a psychiatric consultant. The court assessed the qualifications of the doctor and determined that they were sufficient for his evidence to be admissible, with the ultimate weight of the evidence being for the jury to determine.

36 The flexibility of the qualification rule also satisfies us that the law concerning expert evidence can and does take adequate account of te ao Maori. An example of this is found in *Ministry of Agriculture and Fisheries v Hakaria and Scott* [1989] DCR 289, 294 in which Judge B D Inglis QC said:

The evidence of Mr Pareta, who has devoted himself to detailed historical research for nearly 20 years and who is plainly an expert on such matters, clearly established the rights of the Ngati Raukawa in respect of that section of the beach by Maori tradition and custom. It was suggested that Mr Pareta could not be treated as though he were an expert witness because he lacks formal European qualifications, but the presence or absence of formal European qualifications is irrelevant in a Maori scholar steeped in the lore of his people as Mr Pareta is. I accept his evidence as the product of true scholarship by any standards.

37 We conclude the current common law approach to the question of qualification is correct. Whenever expertise is claimed the court is required to consider both whether the witness has the requisite knowledge and skill, and whether the proposed testimony is within the area of the witness's competence. We envisage following the common law approach in a draft code.

THE EXCLUSIONARY RULES RELATING TO EXPERTS

38 Although expert evidence is excepted from the operation of the opinion rule, there are a number of restrictions on the admissibility of expert evidence. The most important of these in New Zealand law are the common knowledge rule and the ultimate issue rule. In some jurisdictions in the United States there is also the rule known as the *Frye* test which provides that novel scientific evidence is only

28 *Cross* (Mathieson) 422.

29 Unreported, High Court, Christchurch, 21 November 1990, T58/90, Williamson J.

admissible if it has gained general acceptance in the scientific community.³⁰ In this section we consider the adequacy of these rules and the desirability of retaining them.

The common knowledge rule

39 The common knowledge rule states that an expert cannot give evidence on a matter within the knowledge and experience of the fact-finder. The principal justification for the rule is that "to allow expert evidence in such a case would be to defeat the purpose for which juries are used" (McMullin J in *R v B (an accused)* [1987] 1 NZLR 362, 367). The rule, however, applies in all trials whether jury or judge-alone. In practice the rule has operated to exclude certain categories of evidence on matters considered to be within the common knowledge of the jury or judge and on which it is therefore inappropriate for the jury or judge to receive expert help. Thus, the rule was applied by McMullin J in *R v B* when determining that a psychologist could not give evidence concerning the credibility of a child complainant in a sexual abuse case. The assessment of credibility was the function of the jury. Another example of the application of the rule is *R v Smith* [1987] VR 907, in which evidence about the reliability of eye-witness identification was excluded on the basis that the jury could evaluate identification evidence without expert assistance.

40 The concerns of the common knowledge rule are that the jury's function should not be usurped and that time should not be wasted - the concerns of the opinion rule itself.³¹ On the other hand qualified experts who have specialised knowledge or skill can add to the information before the jury, and in that situation neither waste time nor usurp a jury function. Though we do not question the result in the actual cases, the common knowledge rule as applied in both *R v Smith*³² and *R v B*³³ can operate to limit unduly the reception of evidence which would add to the understanding and knowledge of the jury or judge. This is because the rule excludes evidence by its subject-matter without regard to its reliability and value in the trial. We consider a better filter for expert evidence is required which directly assesses value and reliability. Such a filter would deal effectively with the concerns which underlie the rule, but avoid its undesirable

30 *Frye v United States* 293 F 1013 (1923) Federal Court of Appeals, DC Circuit.

31 See *Cross (Mathieson)* 427-429, and 7 Wigmore, *Evidence* §§ 1918, 1920.

32 The Court in *R v Smith* (1987) VR 907 reviewed the psychological evidence on the basis of whether it would assist the jury, whether it would provide information the jury did not know, and whether the evidence was unfairly prejudicial or misleading (at 911-912). However, the Court was influenced by the debatable assumption made in the common knowledge cases that jurors do not need information from experts on the processes of perception and memory.

33 The common knowledge rule was applied in *R v B (an accused)* [1987] 1 NZLR 362 by McMullin J who also indicated that psychological evidence of sexual abuse must be "clear and unmistakable" to be admissible (see also *R v Accused (CA 174/88)* [1989] 1 NZLR 714). This imposes a high standard of reliability which is not required in relation to other relevant evidence.

effects. In the context of the rules which we subsequently suggest, we think the common knowledge rule can safely be abandoned. That also was the conclusion reached by the Australian Law Reform Commission,³⁴ and we note that the Federal Rules of Evidence provide a working example of a code which has abandoned the common knowledge rule.

The ultimate issue rule

41 This rule requires that an opinion should not be offered on the ultimate issue which the jury or judge has to decide.³⁵ Again, this rule is intended to prevent the function of the fact-finder from being usurped. It is said that opinions and conclusions are for the jury or judge alone, especially when the conclusion is an "ultimate issue", defined as the very issue to be decided. We have already set out the criticisms of the usurpation argument in Chapter II. The real danger, in our view, is that the fact-finder will be over-impressed by unreliable opinion and give it weight it does not deserve.

42 This potential danger is present whether the evidence is directed towards an ultimate issue or not, though where the opinion is about an issue which is crucial to the case the danger may be greater. We consider that any unsatisfactory aspects of the evidence should be assessed directly, the primary issue being whether the evidence is helpful and reliable, not whether it goes to the ultimate issue.³⁶

43 Moreover, in practice the rule has proved to be too restrictive and is therefore widely ignored. As the Court of Appeal said in *R v Howe* [1982] 1 NZLR 618, 628:

The rule that a witness cannot give evidence on the ultimate issue has now been very much eroded. Experts do commonly give evidence on matters on which the ultimate decision in the case turns.

44 The Australian Law Reform Commission has recommended abolition of the rule,³⁷ and in England the rule has been abolished for civil proceedings by s 3 of the Civil Evidence Act 1972.³⁸ In the United States federal jurisdiction, where

34 Australian Law Reform Commission, *Evidence: Interim Report* (1985) paras 354, 243; *Evidence: Report* (1987) para 151, Draft Act s 69. And see: Australian Evidence Bill 1991 cl 86; New South Wales Evidence Bill cl 64.

35 *Cross* (Mathieson) 437-442; see *R v B (an accused)* [1987] 1 NZLR 362, especially the judgments of Somers and Casey JJ.

36 See 7 Wigmore, *Evidence* § 1921.

37 Australian Law Reform Commission, *Evidence: Interim Report* (1985) para 743 at 412-415.

38 Abolition was recommended by Great Britain Law Reform Committee, *Seventeenth Report, Evidence of Opinion and Expert Evidence* (Cmd 4489, 1970) especially para 63. See also Hodgkinson, *Expert Evidence: Law and Practice* (1990) 150-151.

for the most part the rule has already been abolished,³⁹ there remains the question whether an expert may give an opinion on a legal standard (for example, negligence). As *Weinstein's Evidence Manual* suggests,⁴⁰ it will be rare that such an opinion is helpful to a jury (and we consider it will also be rare that such an opinion passes either of our proposed reform options, see below). However, in some cases, for instance in relation to issues of insanity or asset value, it may be helpful to have such opinions - and indeed they are at present commonly allowed in spite of the ultimate issue rule. As with the common knowledge rule, we consider that the ultimate issue rule should be replaced with a more satisfactory admissibility filter which has regard to the helpfulness and reliability of the evidence.

The Frye test

45 This test⁴¹ applies in many jurisdictions in the United States. It is sometimes suggested that the test would be useful for New Zealand, and a form of the test may be part of our law.⁴²

46 The *Frye* test does not apply to all expert evidence, only to novel scientific evidence. It provides that such evidence may be admitted only when the scientific theory underlying the evidence, and the methodology used, have become generally accepted as valid in the scientific community. Thus, in *Frye* a form of polygraph machine for detecting lies was deemed unacceptable. The court said:

the systolic blood pressure deception test has not gained such standing and scientific recognition among physiological and psychological authorities as would justify the courts in admitting expert testimony developed from the discovery, development and experiments thus far made.⁴³

Traditionally, when the theory and methodology have ceased to be novel, the test ceases to apply and the type of evidence in question becomes admissible as a matter of course. The scientific consensus is taken as indicating reliability. When there is general consensus, it is considered that the individual expert's scientific appraisal is less subjective and safer to rely upon.

39 Federal Rules of Evidence r 704. Note, however, that psychiatric or psychological evidence concerning an ultimate issue is excluded by an amendment to the Federal Rules inserted in 1984. This amendment has been criticised as unsatisfactory and contrary to principle: Rogers and Ewing, "Ultimate Opinion Proscriptions: A Cosmetic Fix and a Plea for Empiricism" (1989) 13 *Law and Human Behaviour* 357.

40 Weinstein and Berger, *Weinstein's Evidence Manual* para 13.04[02][a].

41 Above note 30.

42 *R v B (an accused)* [1987] 1 NZLR 362, 367. See para 52 below.

43 *Frye v United States* 293 F 1013, 1014 (1923).

47 In the United States the test is the subject of considerable criticism.⁴⁴ It has never applied in all state jurisdictions - and some states and federal circuits have used the test but subsequently abandoned it.⁴⁵ Because the focus of the rule is on acceptance by the scientific community, much depends on whether "scientific community" is narrowly or widely defined in the particular case. This leads to uncertainty. If "scientific community" is very narrowly defined (and this has been the tendency), the community becomes, in the end, a small group of experts whose views are dispositive. Moreover, for first-time proponents of a new kind of scientific evidence it is difficult to satisfy the test, a difficulty which is compounded when there is a single pioneering expert in the field. Novel evidence may be valid and reliable but nevertheless treated as inadmissible. The effect of the rule is that new developments in science are slow to appear in the courts. We therefore do not consider that the *Frye* test is satisfactory. "Acceptance" by the scientific community is, in fact, only one aspect of the reliability of evidence.

48 A possible counterpart to the *Frye* test was referred to in *R v B* where McMullin J stated that to be admissible, scientific evidence must be from a "recognised branch of science". (The Judge concluded that psychological evidence was from a recognised branch and could sometimes be admitted.)⁴⁶ A "recognised branch of science" test would appear to be very similar to the *Frye* test and to create the same problems by requiring an approach based on categories of expert evidence. Our present conclusion is that such a test is too narrow and that a better test can be propounded to meet the valid concerns about reliability expressed by McMullin J. A test that recognises that the helpfulness and reliability of expert evidence varies from case to case and depends on a variety of factors would deal with these concerns, but be flexible enough to cover a wide range of situations.

Psychologists and psychiatrists

49 The evidence of psychologists and psychiatrists demonstrates many of the difficulties which arise in relation to expert evidence. Their evidence is often

44 On *Frye*, see: Imwinkelried, "A Comparative Law Analysis of the Standard for Admitting Scientific Evidence: The United State Stands Alone" (1989) 42 Forensic Science International 15; Giannelli, "The Admissibility of Novel Scientific Evidence: *Frye v United States* a Half-century Later" (1980) 80 Columbia LR 1197; *McCormick on Evidence* (3 ed, 1984) at 605-608; McCormick, "Scientific Evidence: Defining a New Approach to Admissibility" (1982) 67 Iowa LR 879; Black, "A Unified Theory of Scientific Evidence" [1988] Fordham LR 595; but see Hanson, "James Alphonzo Frye is Sixty-Five Years Old; Should He Retire?" (1989) 16 Western State University LR 357.

45 McCormick, above note 44, (1982) Iowa LR 879, 895-902; Hanson, above note 44 at 369-390.

46 [1987] 1 NZLR 362, 367.

excluded by the operation of the common knowledge and ultimate issue rules⁴⁷ (and sometimes by the *Frye* test in the United States).⁴⁸ However, under New Zealand law, the exclusionary rules have never been totally or consistently applied. For instance, psychological and psychiatric evidence as to insanity is not excluded (though it is an ultimate issue); but some kinds of psychological evidence about child sexual abuse are.⁴⁹ The courts have correctly identified problems with this kind of evidence, treating it with justifiable suspicion in cases where it is highly subjective or would tend to conflict with the common sense reasoning of jurors. On the other hand, there may be cases where evidence is at present inadmissible, but might assist the court. A possible example is *R v Accused* (CA 174/88) [1989] 1 NZLR 714 in which psychological evidence from a school guidance counsellor concerning specific behavioural characteristics which she considered were consistent with sexual abuse was excluded.⁵⁰ While we certainly do not discount the problems with psychological and psychiatric evidence, we consider that the common law rules do not deal with them adequately.

50 Some of the problems relating to exclusion of psychological and psychiatric opinion concern evidence which reflects on the credibility of a witness.⁵¹ Evidence concerning credibility is a difficult area which it is not appropriate to consider in this paper (we propose to consider all aspects of credibility evidence in a later discussion paper). At this juncture we simply note that particular rules must apply to credibility evidence and that general credibility evidence is most unlikely to be helpful. However, as knowledge increases, circumstances may well arise in which psychological and psychiatric evidence directly bearing on credibility will assist the fact-finder.⁵²

47 *R v B* [1987] 1 NZLR 362; *R v Smith* [1987] VR 907; also *R v Accused* (CA 174/88) (1989) 1 NZLR 714; *R v Turner* [1975] QB 834; *R v Kyselka* (1962) 133 CCC 103; *R v MacKenney* (1981) 72 Cr App R78; but see *R v Toohey* [1965] AC 595; *Lowery v R* [1974] AC 85; *DPP v A and B C Chewing Gum* [1968] 1 QB 159.

48 Graham and Kabacy, "Expert Testimony by Psychologists: Novel Scientific Evidence" (1990) 14 Law and Psychology Rev 71; McCord "Expert Psychological Testimony about Child Complaints in Sexual Abuse Prosecutions: A Foray into the Admissibility of Novel Psychological Evidence" (1987) 77 Journal of Criminal Law and Criminology 1.

49 *R v B* [1987] 1 NZLR 362; *R v Accused* (CA 174/88) [1989] 1 NZLR 714. The common law as stated in these cases is now partially replaced by the Evidence Amendment Act 1989, see paras 54-55.

50 There were, however, serious problems with the evidence, not the least of which was the fact that the defence was surprised by the evidence, and did not have time to prepare for cross-examination (see 721). We also note that the statutory reform of the common law in this area, the Evidence Amendment Act 1989 (see below note 54), may not have changed the result in this case (depending on whether the witness was a registered psychologist under the Psychologists Act 1981, which allows registration only if a person has certain qualifications - the witness held a Bachelor of Social Science in psychology and a Diploma in Guidance Counselling).

51 *R v B* [1987] 1 NZLR 362, especially the judgment of Somers J, 369; *R v Turner* [1975] QB 834.

52 As suggested in *R v B* [1987] 1 NZLR 362, 368, 370.

51 *R v B* (see para 39) is the leading case on expert evidence in New Zealand. The issues in the case primarily related to psychological evidence concerning the credibility of an alleged child victim of sexual abuse. The judges of the Court of Appeal variously applied the common knowledge rule, the ultimate issue rule, a rule against expert evidence on credibility, and the hearsay rule to exclude large parts of the psychologist's evidence. The judges also extensively reviewed the law on the subject and noted the inconsistencies and conflicts in earlier cases. It appears from the judgments that at least two of the judges were not entirely satisfied with the way the rules are operating, though they clearly endorsed the concerns that the rules are intended to address. McMullin J specifically referred to the possibility of legislative reform.⁵³ This reform subsequently occurred.⁵⁴

52 Casey J referred to the possibility that some evidence from a psychologist may be admissible by way of corroboration:

Within the accepted limits for the admission of corroborative evidence there may accordingly be room in this case for the psychologist to give expert evidence of her observation and testing of the complainant, with a view to saying whether her condition and reactions are consistent with those of children of a corresponding age who have been sexually abused. She would need to describe the tests she undertook and the reactions of those other children from her own experience and she may have recourse to recognised specialist literature to confirm her opinion.... Such evidence could include statements by the complainant of her feelings or perceptions about herself and others, but only as proof of the fact that she made them. But outright hearsay, and the repetition of the allegations against the accused, and any indication of the psychologist's own view of credibility must be excluded. It is essential that the scientifically objective character of such evidence be preserved if it is to be of any value. In this way the jury may be helped by more orthodox means than those proposed in reaching their own conclusions about the complainant's credibility and the guilt of the accused, without having their task pre-empted by experts.⁵⁵

Casey J also made reference to *State of Oregon v Middleton* 657 P 1215 (1983), where a "helpfulness" test was adopted and psychological evidence was admitted on the basis of its reliability and value in the particular circumstances (but direct credibility evidence that a child was telling the truth was held to be inadmissible).

53 [1987] 1 NZLR 362, 369.

54 Section 23G Evidence Act 1908 as inserted by s 3 Evidence Amendment Act 1989. See below paras 53 and 54.

55 [1987] 1 NZLR 362, 373.

53 Though psychological and psychiatric evidence may demonstrate the problems more starkly than other forms of expert evidence, the difficulties the courts have encountered in this area are in part an indication of the inadequacy of the present common law rules dealing with expert evidence. In the case of child sexual abuse, the legislature has intervened to correct the inadequacy by way of the Evidence Amendment Act 1989. The legislation is, however, confined to the one area of sexual abuse, and does not deal with the wider problems of psychological, psychiatric and other expert evidence.⁵⁶ In the long run, we doubt whether it is desirable for rules of evidence to single out psychological and psychiatric evidence. The principles which should apply to such evidence are the same as should apply to all expert evidence. As with all expert evidence, reliable and objective psychological and psychiatric evidence which assists the judge or jury should be admitted, while unhelpful evidence should be excluded.

54 We also note that when an evidence code is implemented it will be important to deal with the relationship between the provisions now made by the Evidence Amendment Act 1989 and the code provisions about expert opinion evidence. On its face s 23G is entirely inclusionary and would not operate to exclude any evidence which is admissible under the present common law or a code which replaced the common law (see the draft code provision s 4). Moreover, it is our view that the suggested code rules would allow reception of all the evidence at present admitted by reason of the Amendment Act. It therefore follows that s 23G could be repealed without creating problems, and this course may well be desirable to avoid confusion. There may, however, be some advantage in retaining the legislation, at least in the short term, in the interests of added certainty. If s 23G is retained, it will need to be amended in one respect. The section as it stands applies only to expert opinion evidence from registered psychologists and psychiatrists. This narrow qualification requirement is inconsistent with the approach to qualification which we suggest for the evidence code. It will therefore be necessary, if s 23G is retained, to amend the provision so that it applies to all expert evidence of a psychological nature. Different qualification rules in a code and the Amendment Act would cause unnecessary confusion.

OPTIONS FOR REFORM

55 As Wigmore put it,⁵⁷ the underlying question in relation to expert opinion evidence is:

On this subject can a jury receive from this person appreciable help?

Evidence of experts, as with evidence of other witnesses, needs to be assessed as

56 The legislation is limited in three principal respects: it covers only the evidence of complainants under 17 years; it applies only to evidence from registered psychologists and psychiatrists; and it applies only to cases of a sexual nature.

57 7 Wigmore, *Evidence* § 1923 [emphasis original].

to its relevance and admissibility on the basis of its value and reliability in the particular case. The common knowledge and the ultimate issue rules are issue-based and require a blanket exclusion of opinion testimony in relation to certain issues, regardless of the actual quality of the testimony. We consider that a better test for admissibility would be evidence-based, and designed to exclude only unsatisfactory expert opinion. Such an approach would aim to meet the concerns of the common law rules, but without their propensity to exclude evidence that ought to be admitted - which tends to induce an ad hoc and unpredictable application of the rules as the courts endeavour to achieve a just and sensible result in particular cases. In our view, therefore, the best way to further the policies underlying the present common law rules is to develop code provisions for the admissibility of expert opinion evidence which focus directly on the value and reliability of the testimony.

56 Having considered overseas models for reform and having tried ourselves to formulate new approaches, we consider that there are two sound and practical options for a reformed rule concerning expert opinion evidence. The first is the approach taken by the Australian Law Reform Commission; the second is the approach taken by the Federal Rules of Evidence.

Option 1: The Australian approach

57 As we previously noted, the common knowledge rule and the "recognised branch of science" test to a substantial extent deal with the same concerns as the qualification test. The first option for reform is therefore simply to rely on qualification as the sole requirement for an exception to the opinion rule for expert witnesses. This is the course recommended by the Australian Law Reform Commission and followed in the Australian Evidence Bill,⁵⁸ cl 85 of which provides:

Where a person has specialised knowledge based on the person's training, study or experience, the opinion rule does not apply to evidence of an opinion of that person that is wholly or substantially based on that knowledge.

58 The Australian Law Reform Commission was satisfied that qualification is the sole specific protection required. Combined with the general protections inherent in the trial process (cross-examination and calling alternative witnesses) and, as a final filter, the general exclusionary power where the evidence is unfairly prejudicial, misleading or confusing, the qualification requirement was considered to be sufficient to guard against any dangers arising from expert evidence.⁵⁹

58 See also New South Wales Evidence Bill cl 63.

59 Australian Law Reform Commission, *Evidence: Interim Report* (1985) vol 1 at 416.

Option 2: Federal Rules of Evidence

59 The alternative to the Australian approach is to develop a further test for the admission of expert evidence, which operates in addition to the qualification rule and the general exclusionary power. The Federal Rules of Evidence (and the also Canadian Law Reform Commission's draft code) have a requirement that expert evidence must "assist" the court. Rule 702 of the Federal Rules of Evidence provides:

If scientific, technical, or other specialized knowledge *will assist the trier of fact to understand the evidence or determine a fact in issue*, a witness qualified as an expert by knowledge, skill experience, training, or education, may testify thereto in the form of an opinion or otherwise. [emphasis added].

60 Commentators suggest that the concept of assistance or helpfulness to the fact-finder has been successfully applied by United States federal courts as the basis for the admissibility of expert opinion evidence.⁶⁰ Although at first sight the concept of helpfulness appears broad, on analysis it underlies all the present rules concerning expert evidence. Moreover, the categories of expert evidence are wide and the problems raised by individual items of expert opinion are varied, so that any principle of admissibility must have sufficient breadth to encompass all the potential problems. A helpfulness rule is therefore practical and enables the court to deal effectively with the concerns about expert evidence.

Factors underlying both approaches

61 Both of the approaches provide, in our view, a satisfactory basis for reform. Indeed, both have very similar, if not the same, substantive effect and would exclude the same evidence for the same reasons. Whether considered within the framework of qualification, probative value and prejudicial effect, or within the framework of qualification and helpfulness, the court will use the same factors in making the decision to exclude or admit the evidence.⁶¹ By way of example, we indicate some of the factors⁶² which will often require consideration.

62 The crucial factor in the assessment of expert opinion evidence is the reliability of the evidence. If the expert is not qualified the evidence is likely to be unreliable. In addition, unreliable expert opinion will clearly be unhelpful as it will not be possible to base a sound decision on it. Unreliable opinion may also be unduly prejudicial, misleading or a waste of time under the general exclusionary power.

60 Weinstein and Berger, paras 13.02[01]-[02].

61 McCord, above note 48 at 19.

62 See also McCord, above note 48, especially 18-24; Weinstein and Berger, *Weinstein's Evidence Manual*, para 13.02[04]; McCormick, above note 44, (1982) 67 Iowa LR 879, 911-912; *McCormick on Evidence*, 608-610.

63 The requirement that a witness be qualified will usually go a long way towards establishing the reliability of evidence. But by itself it is not enough. Evidence from a well-qualified expert may still need to be excluded on the ground of unhelpfulness, or because its probative value is outweighed by its prejudicial, misleading or confusing effect. The evidence of scientific experts, for example, must be assessed for scientific reliability, including the validity of the underlying scientific theory and the reliability of the procedures and techniques used in the particular case.⁶³ In relation to the underlying theory, the court must guard against idiosyncratic and unsatisfactory theories which may have an undue influence on the determination of the facts in the case. On the other hand, the theory need not be accepted by all or most scientists working in the relevant area. That is too high a standard. Theories which are newly developed or which represent the views of a minority may still be reliable and helpful.⁶⁴ As for the scientific procedures used in a case, they ought to conform to acceptable scientific standards, and the work done ought to be thorough and conscientious. Once again, though, individual variation from procedural norms will not necessarily mean that the evidence is unreliable. Nor need an opinion be conclusive⁶⁵ in order to be sufficiently reliable to be admitted.

64 Objectivity may also be an important facet of reliability.⁶⁶ In this regard, some evidence of social scientists has caused problems in the past. The very nature of their disciplines may mean that these experts are more closely involved with their subject of study than "pure" scientists.⁶⁷ Their evidence may therefore have to be less objective, despite every endeavour to achieve objectivity. Some kinds of evidence given by social scientists may, nevertheless, be more objective than other kinds and the relative objectivity of an expert's opinion should always be taken into account when assessing reliability.

65 As we have already mentioned, evidence regarding the credibility of a witness given by an expert, normally a psychologist or psychiatrist, presents special problems which will be considered in a later paper on credibility evidence.⁶⁸ We consider that where such evidence relates solely and directly to credibility it must, on the current state of knowledge, be regarded as suspect.

63 See Black, above note 44.

64 It will of course always be for the fact-finder to assess the weight to be given to the evidence once it has been admitted - and in that regard both qualifications and other considerations in relation to reliability will again be relevant.

65 Inconclusive results of scientific tests present special problems. In our view such evidence will sometimes be admissible, depending on how it is to be used, whether the level of reliability is explained clearly to the fact finder and whether the evidence is unfairly prejudicial or misleading. In all cases, however, pre-trial disclosure of such evidence, especially by the prosecution in a criminal case, will be very important.

66 See Casey J, *R v B* [1987] 1 NZLR 362, 373.

67 Even scientists working in the pure sciences cannot entirely detach themselves: see Black, above note 44.

68 See para 50.

66 Another factor in the decision to admit or exclude is the constraint on the trial imposed by time and resources. Thus expert opinion evidence should be excluded when it is repetitive or is of questionable reliability and concerns an unimportant subject, or when it adds nothing to the knowledge that the jury members or the judge already possess, so that the conclusions they draw will be unaffected by the expert's evidence. It may of course be difficult in any particular case to determine whether expert evidence is time-wasting, in which event the issue may best be dealt with, at least in a civil action, by an order for costs.

CONCLUSION

67 In the course of our work on opinion evidence we attempted at one stage to formulate a rule which listed the various factors the court should take into account in determining whether expert evidence will help or assist the court. But the result was to replace the helpfulness concept with a number of other concepts which were not demonstrably more precise. The factors also tended to overlap with each other causing confusion. In the final analysis, we have concluded that relying on a basic principle of helpfulness will not create uncertainty or difficulty. Moreover, it needs to be kept in mind that the helpfulness test is not a broad general test for admissibility but rather a control imposed *in addition to* the qualification requirement and the general exclusionary power.

68 We think it is clear that the helpfulness test is not, strictly speaking, essential. Expert evidence can satisfactorily be dealt with in the way proposed by the Australian Law Reform Commission. We, however, suggest the helpfulness test as an additional filter, first because it appears to have worked well in the United States federal jurisdiction, and secondly because it reflects the underlying concerns of the present common law rules in a code provision which is simple and easy to apply. We would welcome comments on whether the helpfulness test is a useful component of the rules concerning expert opinion evidence.

69 To summarise, our two options for reform of the opinion rule as it relates to expert evidence are:

- 1 *the Australian approach* which, as an exception to the opinion rule, allows the admission of properly qualified expert opinion, subject to the general exclusionary power as a quality control; or,
- 2 *the Federal Rules approach* which, as an exception to the opinion rule, allows admission of properly qualified expert evidence *which would help the court or jury to determine the facts in a proceeding*, and with the general exclusionary power operating in residual cases (which would be rare).

At this stage we have drafted code provisions on the basis of option 2. Whichever of the two options is finally adopted we do not see our proposals as radically

changing the nature and scope of admissible expert opinion evidence. The proposals are simply designed to overcome the difficulties of the present law and to ensure that expert evidence is admissible only when it assists the court.

Questions:

- 4 When should expert opinion evidence be admissible?
- 5 We propose two options for reform of the rules relating to the admissibility of expert opinion evidence: the Australian approach and the Federal Rules (helpfulness) approach. Which is preferable?

VI

The Factual Basis of Expert Opinion

70 We emphasise, throughout this paper, the need for thorough investigation and testing of opinion testimony, and especially expert opinion. One of the common law rules which is intended to promote this is the requirement that expert opinion must be based on factual evidence which is admissible and actually before the court.⁶⁹ As Lawton LJ said in *R v Turner* [1975] 1 QB 834, 840:

Before a court can assess the value of an opinion it must know the facts on which it is based. If an expert has been misinformed about the facts or has taken irrelevant facts into consideration or has omitted to consider relevant facts, the opinion is likely to be valueless.

71 In practice, the facts underlying the opinion may be established in the testimony of the expert witness or in the testimony of other witnesses. In either case the value of the opinion depends on the acceptance by the court of the factual basis. Where the factual basis is disputed and the fact-finder comes to a view of the facts contrary to that relied on by the expert, then the opinion will be given no weight. Thus, the opposing party will often seek to impugn an opinion by undermining its factual basis and the proponent will seek to support the opinion by fully proving the factual basis.

72 In order to facilitate full testing of expert evidence, the court in *R v Turner* held that the expert must set out the facts on which the opinion relies, either by giving direct testimony of a factual nature or referring to facts given in the testimony of other witnesses. These practical steps are desirable in principle, since they enable a cross-examiner to know the factual basis of the expert's opinion and also assist the judge and jury to consider the evidence in context.⁷⁰ In addition, they are necessary to establish that the opinion is relevant.

73 We do not, however, consider it is necessary to have a specific rule on the subject. In our view, either of the options for reform proposed in chapter V will

69 *Cross* (Mathieson) 430; *Paric v John Holland Construction Pty Ltd* (1985) 62 ALR 85; *Bevan v Blackhall and Struthers (No 2)* [1978] 2 NZLR 97, 123; but see Australian Law Reform Commission, *Evidence: Interim Report* (1985) vol 2, paras 107-108, citing *Ramsay v Watson* (1961) 108 CLR 642.

70 Sometimes this requirement necessitates a hypothetical question: see *Cross* (Mathieson) 430. This device has been criticised as impractical and cumbersome (see *McCormick on Evidence*, 41-42), and it is often dispensed with in practice. We consider that the necessity of hypothetical questions depends on the circumstances of the case, and that our general rule concerning helpfulness will be sufficient to deal with the problem.

be adequate to deal with the problem. Under the helpfulness option (see paras 59 and 60) the issue of factual basis is subsumed within the inquiry as to whether the opinion is of assistance to the court. The court will need to assess the adequacy of the factual basis of the opinion to ensure that it has the detail necessary for the judge or jury to be able to understand the opinion and assess its worth. Any opinion which is presented to the court with no, or an inadequate, factual basis will not be helpful. It will be treated as inadmissible either when it is tendered or, if it has been provisionally admitted⁷¹ (perhaps on the basis of a hypothetical statement of facts contained in the question to the expert), when it becomes clear that the requisite factual basis has not been established.

74 Under the Australian option for reform (see paras 57 and 58) opinion evidence without the requisite factual basis will be excluded on the ground that it is likely to mislead the fact-finder, or be unfairly prejudicial. The same factors which inform the helpfulness analysis will be relevant to this determination, and a similar result will be reached.

INADMISSIBLE FACTUAL EVIDENCE AND THE OPINION RULE

75 There are sometimes difficulties when the expert's evidence rests in part on factual evidence which proves to be inadmissible. At common law the normal reason for this is that the evidence which forms the factual basis of the opinion is hearsay. The relationship between the opinion rule and the hearsay rule therefore requires consideration, though the same principles apply to all inadmissible evidence forming the factual basis of an opinion (for example, evidence which is inadmissible because of privilege).

Opinion and hearsay

76 The relationship between the opinion rule and the hearsay rule⁷² needs to be considered in light of the code provisions suggested in our hearsay discussion

71 We note that provisional admission will be avoided as far as practicable in a jury trial because of the risks involved in permitting a jury to hear evidence which is subsequently found to be inadmissible.

72 See generally Imwinkelried, "The Bases of Expert Testimony: The Syllogistic Structure of Scientific Testimony" (1988) 67 North Carolina LR 1; Pattenden, "Expert Opinion Evidence Based on Hearsay" (1982) Crim LR 85; O'Toole, "Hearsay Bases of Psychiatric Opinion Testimony: A Critique of Federal Rule of Evidence 703" (1977) 51 Southern California LR 129; Zuckerman, *The Principles of Criminal Evidence* (1990) 69; Carlson, "Policing the Bases of Modern Expert Testimony" (1986) 39 Vanderbilt LR 577; Rice, "Inadmissible Evidence as a Basis for Expert Opinion Testimony: A Response to Professor Carlson" (1987) 40 Vanderbilt LR 583.

There is an initial important question whether the evidence given is hearsay or not. A distinction is drawn between the "facts of the expertise" (which comprise the learning of the expert and are not hearsay) and the "facts of the case" (which comprise the circumstances of the case before the court to which the expert applies her or his expertise) and which are subject to the hearsay rule: see Zuckerman cited above.

paper.⁷³ Under those provisions, it will be possible, in civil cases, for the expert to give the hearsay (provided an available declarant is called if the other parties so require).⁷⁴ In criminal cases, however, the hearsay will also be required to have a reasonable assurance of reliability. It is possible to contend that if experts customarily rely on particular items of hearsay, then that hearsay should be regarded as sufficiently reliable to satisfy the courts. This is the position taken in the United States under the Federal Rules, at least by some courts (rr 703 and 705 have been interpreted as providing that if a particular type of hearsay is reasonably relied upon by experts in the relevant field, then hearsay of that kind is admissible as the basis of an expert's opinion).⁷⁵

77 We consider, however, that our hearsay proposals make a specific rule concerning hearsay relied upon by experts unnecessary and that its introduction would complicate the principles governing the reception of hearsay. Hearsay from expert sources should be controlled by the same regime as hearsay from other sources (though the source of any hearsay may have an impact on the assessment of reliability). The same principle should apply to factual basis evidence which may breach one of the other exclusionary rules. As a general proposition, the code rules governing opinion evidence should not provide a basis for admitting otherwise inadmissible factual evidence.

CONCLUSION

78 We favour the Australian approach to factual basis evidence⁷⁶ and consider that the admissibility of the facts on which an opinion was based must be considered separately from the admissibility of the opinion. An important factor in determining the admissibility of the opinion will be whether the jury or judge can properly assess the worth of the opinion in the absence of any inadmissible factual basis evidence. This in turn may depend upon whether the inadmissible evidence is important to the formation of the opinion. If the inadmissible evidence is such that the opinion cannot be evaluated without it, then the opinion itself should not be admitted. If, however, there is a considerable factual basis to support the opinion and the inadmissible evidence is only a minor part of this basis, it may be that the opinion can properly be assessed without the inadmissible evidence. In summary, the admissibility of the opinion and of the factual evidence are separate issues, though the admissibility of the opinion needs to be considered in light of any decision that some evidence forming the factual basis is inadmissible.

73 Law Commission, *Evidence Law: Hearsay* (NZLC PP 15, 1991) 32-35.

74 *R v Smith* [1989] 3 NZLR 405, 410-411 is a case in which hearsay from a psychologist was excluded in part because the declarant was the accused and was available to testify. This should remain the result under our code rules.

75 See Weinstein and Berger, para 13.03[02][c].

76 Australian Law Reform Commission, *Evidence: Interim Report* (1985) vol 1, paras 750-751.

Question:

- 6 Can the problem of expert opinion evidence with an inadequate factual basis be dealt with satisfactorily without a special rule, whichever of the options for reform is chosen?

VII

Probability Theory and Expert Evidence

79 The admissibility of expert evidence is an important question. Equally important, however, is the proper use of expert evidence. This is a topic on which much has been written, particularly in relation to problems of proof and mathematical probability.⁷⁷ In many cases, but particularly in those involving expert witnesses, a knowledge of probability theory can be of material assistance to practitioners and the court in analysing evidence. Indeed, expert witnesses, especially scientific experts, often express their test results and their subsequent opinions in the form of probabilities; and some would argue that such evidence should always be given in the form of a "likelihood ratio" (a particular term in a formula basic to probability theory known as Bayes' theorem).⁷⁸ The following two examples of the relevance and use of probability theory illustrate the issues.

PROBABILITY THEORY AND DNA EVIDENCE

80 Scientific evidence of DNA profiles⁷⁹ should always be in probability form. We use as a hypothetical example a murder where the accused has been found wearing a blood-stained shirt. A forensic scientist may be able to take blood samples from the murder victim and from the stained shirt and compare the DNA from both. In the laboratory various processes are used to break down the samples into their constituent DNA. Genetic probes are used to identify alleles (which can loosely be thought of as genetic characteristics) which show up as bands on a photographic picture called an autoradiogram. If the two sets of bands match, the samples may have come from the same individual. If not, the samples will not have come from the same individual. Whether the bands match is assessed by the scientist comparing them visually (it is sometimes possible to use a computer). The likelihood of the match is given a probability - if the bands are observed to be in the same position, or very close, this probability will be very high, for example 0.99.⁸⁰ This is not, however, the end of the matter because, although

77 See bibliography for articles relating to an approach to the process of proof and evidence based on probability theory.

78 See note 84 below.

79 This section is based on a number of articles on DNA evidence listed in the bibliography.

80 The results of the same DNA test conducted repeatedly (if this were possible) will produce a statistical distribution around a theoretically true value. This distribution is said to be normal but will be sharply peaked. It follows that a match must be expressed as a probability but this probability may be very high. Note that even if the bands are observed to be in exactly the same place there may not be a true match because the apparent match may have been caused by an error in the processing of the material.

an individual's genetic make-up as a whole is unique (except perhaps for identical twins), particular alleles will be present in the DNA of many people. Thus, the DNA may have come from someone else even if the bands match. Normally forensic scientists will give evidence of the likelihood of a match if the DNA sample came from a randomly selected member of the population⁸¹ (though this is not necessarily always appropriate).⁸² Probes are therefore chosen to find alleles that are reasonably uncommon, for instance an allele that is present in 1 in 200 people (the probability of occurrence here is 0.005),⁸³ and the probes are usually used in combination to search for several alleles - which greatly enhances the probability assessments.

81 Bayes' theorem can then be used to compare the two rival propositions: that the DNA came from the selected individual or that the DNA came from someone else. The formula coordinates the probabilities of these propositions with each other and with the probabilities generated by the other evidence in the case.⁸⁴ The ratio of the probabilities of the two propositions is known as a likelihood ratio and describes their comparative likelihood. In the example we have given the ratio is $0.99/0.005 = 198:1$ that the blood on the shirt is from the murder victim.

82 On its own, however, the likelihood ratio can mislead a judge or jury not accustomed to considering probabilities. That is because the likelihood ratio must be considered in light of all the evidence in the case - in mathematical terms, it must be combined with the prior probability. It is vital for juries faced with evidence of a likelihood ratio of 198:1 in relation to DNA evidence to grasp that this on its own does *not* mean there is a 198:1 chance that the accused committed the murder. The other evidence in the case must be taken into account. In the example, other evidence might be a motive to murder (by the accused or someone

81 As was the case in *R v Pengelly* (unreported, Court of Appeal, 23 August 1991, CA 85/90). The case contains the only detailed discussion of DNA evidence by a New Zealand court.

82 In statistical terms this is called the alternative hypothesis. It may be more appropriate in some cases to formulate this alternative hypothesis as: "that a randomly selected member of a particular racial group was the source of the DNA" (the frequency of alleles differs between racial groups), or "that a member of the family of the selected individual was the source of the DNA".

83 Different racial populations will have alleles present in different proportions - failure to recognise this is sometimes a source of inaccuracy.

84 Bayes' theorem (odds form) is

$$\frac{P(A|E)}{P(\bar{A}|E)} = \frac{P(E|A)}{P(E|\bar{A})} \times \frac{P(A)}{P(\bar{A})}$$

where

E is the evidence

A is the proposition for which E is claimed to be evidence

$P()$ means "probability of"

$|$ means "given that"

\sim means "not"

see Eggleston, *Evidence, Proof and Probability* (2 ed, 1983) 232-236 for a simple explanation.

else), a pre-existing relationship between victim and accused, perhaps a possible alibi. These factors need to be assessed, and combined with the DNA evidence to form an evaluation of guilt. If there is no other evidence in the case except that the murder happened in Auckland (population approximately 1 million) then the prior probability of guilt probably should be regarded as 1 million to one against. When the DNA evidence is considered the assessment would be 1 million to 198, or approximately 5000:1 against, that is there would be in a city the size of Auckland about 5000 people with this particular allele. On the other hand if the DNA evidence was not the only evidence in the case, and the prior probability of guilt on the basis of the evidence was assessed as 3:1 against guilt, the introduction of the DNA evidence would make the probability of guilt 198:3 or 66:1 in favour of guilt (or 0.98 probable). It should be noted however that the above discussion assumes two questionable facts. First, it assumes that 0.005 is the true probability of coincidental match in the circumstances of the particular case. If the accused, or a family member or friend,⁸⁵ have the relevant allele in their DNA, then the chances of a coincidental match rise markedly. Secondly, it assumes that there is no other explanation for the victim's blood being on the accused's shirt than that accused was the murderer. For example, the accused may have been stained with blood trying to help the victim. Such factors increase the probability of a match given that the accused is not guilty, and so reduce the likelihood ratio and reduce the probability of guilt.⁸⁶

83 In many cases evidence can be, and is, successfully dealt with by judges and juries without the introduction of probability assessments. That is because the rules of probability reflect logic and common sense. Problems may arise, however, if it is necessary in the interests of scientific accuracy to introduce evidence concerning likelihood ratios. That not infrequently may be desirable, and in some cases is essential (for example, in the typical DNA case). In such instances, it is vital that the expert explain the nature and significance of the likelihood ratio so that the jurors are not misled. It may also be necessary for the judge to instruct the jurors in the summing-up that they must consider the likelihood ratio in the light of all the other evidence in the case and not assume that it reflects a probability of guilt. Scientific evidence in the form of likelihood ratios may be extremely important but must be properly explained and carefully used.

PROBABILITY THEORY AND PSYCHOLOGICAL AND PSYCHIATRIC EVIDENCE

84 Probability theory can also be applied to the evidence of psychologists and psychiatrists. The Evidence Amendment Act 1989, for example, provides that

85 For instance, the blood could be the accused's from a cut finger, or a friend's blood accidentally splattered on the clothing of the accused.

86 Where more than one probe is used, the alleles must be independent, in what is known as Hardy-Weinberg equilibrium.

expert psychologists or psychiatrists may give evidence that a particular characteristic is "consistent" with a child having been sexually abused.⁸⁷ A characteristic should, however, only be considered consistent with child abuse when it distinguishes victims of child abuse from the general non-abused population. To use a simplistic example, if 80% of abused children bite their fingernails, at first sight proof that an alleged victim bites her fingernails might seem good evidence of abuse. But if 80% of all children abused or non-abused bite their fingernails then the characteristic is neither consistent nor inconsistent with abuse; it is irrelevant. On the other hand, if 20% of abused children suffer severe depression, but only 0.5% of non-abused children suffer depression, then evidence that a child is severely depressed may well be cogent evidence consistent with child abuse. Applying Bayesian analysis it is again the likelihood ratios which matter. In the nail-biting example the likelihood ratio is 1:1 and the information is irrelevant; but in the depression example the likelihood ratio is 40:1 in support of abuse and the information is relevant and helpful.⁸⁸

85 The above example is quite specific. However there are a number of reasons why it may be difficult for psychologists and psychiatrists to give such precise evidence.⁸⁹ First, they may not know the numbers of abused children who display a certain characteristic. The best they may be able to do is give evidence that a certain characteristic, for example being withdrawn and moody at school, is exhibited by many sexual abuse victims. Secondly, the expert may not have very much information about the non-abused population, for example, how many children in the general population are withdrawn and moody at school. To give this information experts may have to rely on their experience that the characteristic does mark abused children, or alternatively that the characteristic is only rarely encountered in non-abused children. In addition, other possible causes of the characteristic will need to be explored. It may be that some other trauma caused the withdrawn behaviour or the depression. Once again, all the factors affecting the likelihood ratio need to be brought to the attention of the court and a skilled cross-examiner will focus on these issues to test the expert evidence. Clarity in giving expert evidence of this kind is therefore very important, as is the understanding of the judge and jury of all aspects of probability referred to by the expert.

87 On this Act see Robertson and Vignaux, "Authorising Irrelevance?" [1990] Family Law Bulletin 67; Taylor, Geddis and Henaghan, "Child Sexual Abuse III: Child Witnesses and the Rules of Evidence" [1990] NZLJ 425; Robertson and Vignaux, "Correspondence: Child Sexual Abuse" [1991] NZLJ 5. This section of the paper is substantially based on these articles.

88 Symptoms taken from Mrazek and Mrazek, "The Effects of Child Sexual Abuse: Methodological Considerations" in Mrazek and Kempe, *Sexually Abused Children and Their Families* (1981).

89 See Taylor, Geddis and Henaghan, above note 87.

CONCLUSION

86 When experts give evidence in terms of probabilities it is essential that the court and jury fully appreciate both the value and usefulness of the evidence and its limitations. Although the proper use of probability evidence is governed by logic rather than law, it is of great importance to achieving the purposes of the trial, especially the rational ascertainment of facts. We have thought it necessary to refer to probability theory because of its significance for those involved in presenting and analysing expert evidence in trials. We do not, however, consider that it is practicable to devise code rules which require experts to give probability evidence in a particular way. Rather we think it is important to draw attention to the practical issues, while ensuring that the code rules, as far as possible, facilitate full exploration of probability evidence. We emphasise the value to practitioners of a working knowledge of probability theory and suggest that it is a valuable component of evidence courses at law schools.

Questions:

- 7 Is evidence in the form of probabilities well used by the courts?
- 8 Is it possible or desirable to formulate legal rules based on the laws of probability to regulate evidence (and in particular scientific evidence) given in the form of probabilities?

VIII

Procedural Rules and Experts

87 Consideration of the problems concerning expert evidence has led us to the conclusion that attention needs to be given to procedural as well as evidential rules. Indeed, in our view many of the difficulties concerning expert evidence can be ameliorated by introducing procedures which enhance the information available to the court, promote thorough pre-trial investigation of expert testimony, and facilitate proper examination and cross-examination. Put another way, improving the procedural rules can both lessen dependence on the evidential rules of exclusion and improve the quality and usefulness of expert evidence. We therefore consider that it is necessary to discuss the reform of procedural rules, while noting that in due course it may be preferable to include some or all of the procedural rules in a code of procedure rather than in an evidence code. Our preliminary conclusion is that procedural rules for expert evidence are so intertwined with the evidential rules that it is desirable for both to be in the same code, but we would welcome comments on the appropriate legislative context for these rules.

WHO SHOULD CALL EXPERT WITNESSES?

88 New Zealand trial procedure is adversarial in nature. Each party presents witnesses to establish its own version of what happened in the case and endeavours to convince the court or the jury that it is correct. The judge has almost no role in bringing witnesses or evidence before the court. These aspects of court procedure were referred to in our Principles Paper⁹⁰ in which we indicated that party freedom to present the case is generally consistent with the fundamental goal of rational ascertainment of facts. As, however, we also indicated, this does not preclude the judge from taking a greater role in the proceedings in appropriate circumstances.

89 The adversarial method as used in our legal system has proved generally effective. Other disciplines, however, use different methods for ascertaining facts. The methods scientists use are less centred around a dichotomised conflict and more concerned with an objective search for truth, wherever that may lead. Although it is no doubt impossible to ascertain the complete truth and to avoid all preconceptions, scientists in general are committed to independence and impartiality. The partisan nature of the trial does not always fit comfortably with

90 *Evidence Law: Principles for Reform* (NZLC PP13, 1991) para 36; and see generally Freckelton, "Court Experts, Assessors and the Public Interest" (1986) 8 *International Journal of Law and Psychiatry* 161.

a need for the witness to be independent, and scientists have protested that they are not well used by the court system.⁹¹ The Australia and New Zealand Forensic Science Society has recently adopted, as a guide to its members, a code of ethics which reflects these concerns.

Court-appointed experts

90 Though the Society's concerns relate to forensic scientists, they apply to and have been expressed by expert witnesses in other professions.⁹² Conclusions and opinions are only reliable if they come from independent people who are not partisans. Injustice sometimes results when experts interpret their role as being to support the case of the party who hired them and only to bring to light evidence supporting the other party when they are specifically asked.⁹³ Such attitudes are not representative of the vast majority of expert witnesses but they do illustrate the potential for partisanship which the justice system and experts' professional groups endeavour to combat, and it is still common to find expert witnesses expressing opinions for one side which are diametrically opposed to the opinions of the experts for the other side.

91 A number of suggestions have been made to deal with these problems. One of the most common suggestions is that partisanship could be avoided by having experts appointed by the court. In New Zealand this is normally done in the Family Court in cases involving children. And recently, in the United Kingdom, in the wake of the Birmingham Six and related controversies, the use of court-appointed experts has been advocated by various people including Lord Scarman and J R Spencer. Lord Scarman has suggested the creation of a special forensic science service which is impartial, under judicial control and available for the use of all parties in criminal cases.⁹⁴ Spencer has suggested that the judge be given power to appoint experts from lists kept for the purpose by professional organisations.⁹⁵

92 Although these suggestions are clearly worth investigating they have not escaped criticism.⁹⁶ While a party's expert may be liable to become partisan, there are also problems in relation to court-appointed experts. Thus, where there

91 Sutherland, "An Anti-abuse Plan for Scientific Evidence, or a Code of Ethics for Forensic Scientists" speech to International Association of Forensic Scientists Conference, 28 October 1990, Adelaide, Australia.

92 We have consulted forensic scientists, psychologists, accountants and engineers.

93 Freckelton, above note 90 at 164-165.

94 "Justice in the Balance" *The Times*; and see "We Simply Cannot Go On Like This" *Independent* Wednesday 20 June 1990.

95 "The Neutral Expert: an Implausible Bogey" [1990] Crim LR 106.

96 Howard, "The Neutral Expert: a Plausible Threat to Justice" [1990] Crim LR 98.

are both court and party experts, because of the aura of independence given to the court expert, the evidence of the parties' experts may be devalued - even though they may be just as competent and committed to ascertaining true facts. In addition, if the court expert is the sole or predominant source of opinion, then the court may be given unreliable evidence without an effective check. In broad terms it seems clear that there are advantages and disadvantages in relation to both kinds of expert witness, with the result that there is in all probability room for both in our trial procedures.

93 Some commentators point to European procedure as a desirable model. Langbein has drawn attention to German civil procedure; and Spencer refers to French civil procedure.⁹⁷ Under both these systems the judge has primary responsibility for finding expert witnesses. Parties have the power to suggest questions for the judge to put to the witnesses, to request second opinions, and to call their own witnesses. However, this last power is little used. Other commentators have suggested more limited options. For example, one American author favours court-appointed experts being limited to commenting on the reliability and scientific standing of the expert evidence presented by the parties.⁹⁸ In this way the views of the parties' experts are put in context and the fact-finder is better able to understand the evidence. We consider this to be a useful role for the court-appointed expert, but too limited.

94 In the United States, the Federal Rules of Evidence contain a power to appoint a court expert (r 706), and in our present law there are substantial powers to appoint court experts in civil and family court cases. The High Court Rules allow the court, on a party's application or on its own motion, to appoint an expert witness in appropriate cases. The Rules also contain a detailed code on how court experts are appointed, what they may do, to whom they report, how their evidence may be challenged and how they are paid (rr 324 - 330). These rules provide a useful model for a more general use of court experts, although we note that the power to appoint a court expert is not, at the moment, often used. Possibly use of the power will increase as pre-trial conferences and the determination of issues prior to trial become more common - and judges become accustomed to taking a somewhat enhanced role in controlling the path of civil litigation. We would certainly be interested to receive comments concerning the use of the High Court Rules, and whether they are workable in practice.

95 In distinction to the High Court Rules, the provisions in the family law statutes allowing for appointment of court experts are extensively used, and to good effect. The statutes variously allow the court to call for medical, psychiatric,

97 Langbein, "The German Advantage in Civil Procedure" (1985) 52 University of Chicago LR 823; Spencer, above note 95. But see Reitz, "Why We Probably Cannot Adopt the German Advantage in Civil Procedure" (1990) 75 Iowa LR 987.

98 Elliot, "Towards Incentive Based Procedure: Three Approaches for Regulating Scientific Evidence" (1989) 69 Boston LR 485. But see Schwartz, "Comment: There Is No Archbishop of Science" (1989) 69 Boston LR 517; and Huber, "Comment" (1989) 69 Boston LR 513.

psychological and other reports.⁹⁹ In the light of both the High Court Rules and the provisions in the family statutes,¹⁰⁰ the suggestion that there should be a greater role for court-appointed expert witnesses would be far from revolutionary and certainly not subversive of the adversary system.

96 In civil cases the Commission favours the parties retaining the primary right to present expert evidence to the court. In this way, experts of all persuasions may be called as witnesses. However, we also consider there should be a general power for the court to appoint experts. Such a power would be potentially valuable, for instance, when there are several experts for the parties and their evidence is irreconcilable or difficult to understand. The power might also be useful when the judge considers that some helpful information is not being made available, especially where one of the parties is unable to obtain the services of an expert witness.

97 The use of court-appointed experts in criminal cases requires special consideration. At present expert reports from probation officers are commonly prepared and received on sentencing matters.¹⁰¹ However, under our present system it is very doubtful whether the court should appoint an expert witness to give evidence at trial over the objections of the accused. Such a step might give the appearance that the court was adopting a prosecutorial role or overruling the accused's wishes concerning the conduct of the defence. If the court is to appoint an expert in a criminal case it would seem necessary to have the consent of the accused. Appointment on that basis could on occasions be valuable to an accused (especially where the defence had inadequate resources). We doubt, however, whether an accused will often be willing to take the risk involved in seeking a court-appointed expert, since the expert's report might well turn out to be unfavourable to the accused. Perhaps the concept of court-appointed experts is only feasible in criminal cases if there is an entirely new approach to the investigation of crime, with the process under the control of the court and with experts primarily appointed by the court and obliged to act on court instructions (subject to the accused being free to call contrary evidence).¹⁰² We would, however, welcome comment on the question of court-appointed experts in criminal cases.

99 For example: Guardianship Act 1968 s 29A; Children, Young Persons and Their Families Act 1989 ss 178, 186, 187; Family Proceedings Act s 46.

100 See also our recommendations in respect of arbitration procedure: Law Commission *Arbitration* (NZLC R20, 1991) paras 365-366.

101 Criminal Justice Act 1985 s 15.

102 See Lord Scarman, above note 94; Langbein, above note 97; but see Reitz, above note 97. Note also, that under the Federal Rules of Evidence the court may appoint an expert in both criminal and civil cases.

Assessors

98 Assessors¹⁰³ who directly advise the judge are an alternative to court experts. Historically, assessors have assisted English admiralty courts and in New Zealand an expert may be used as a "scientific advisor" in patent cases.¹⁰⁴ In *Beecham v Bristol Myers* (Nos 1 and 2) [1980] 1 NZLR 185 and 192, Barker J discussed the use of such advisors. They are present to assist the court. Their primary role is to inform the judge about scientific matters, and to help the judge understand the expert evidence put before the court. They may not give their own opinions or comments to the judge if those opinions and comments are not put to the parties. Their role is limited and does not give any power of decision. In *Beecham*, Barker J indicated that he had been considerably assisted by the advisor, and we agree that in a highly technical patent case the use of an advisor may well be valuable. However, there are dangers involved in the use of advisors or assessors. They have the direct ear of the court and may influence the court in ways that the parties do not know about and cannot control. Nor are they subject to cross-examination. Using an advisor requires great care, as Barker J was at pains to point out. We consider that, in general, the process of presenting and questioning expert evidence should be an open one and, other than in a limited number of special cases, we doubt whether use of assessors would prove helpful.

NOTICE OF EXPERT EVIDENCE

99 In order to investigate and test expert evidence fully, an opposing party should both be warned that expert evidence is to be called and have the opportunity to consider the evidence prior to trial. Particularly when evidence is complex, this is often essential to a fair trial. Moreover, when more than one party plans to call an expert witness, advance exchange of the evidence enables any disagreement between the experts to be discovered in advance of trial; and the experts are able to consider each other's evidence, as well as modify or explain their own evidence. In this way, the issues can be identified and refined before trial (if necessary at a pre-trial conference) and the parties have the opportunity to present expert evidence of the highest quality possible.

100 The Forensic Science Society's code of ethics (mentioned above para 89) goes beyond requiring that expert evidence must be disclosed to the other side before trial, and obliges experts to be available to discuss their evidence with one another. We appreciate the concerns which motivate expert witnesses to seek mandatory discussions at the earliest possible stage, and we agree that such discussions should be encouraged in both civil and criminal cases. We do not,

103 There are also experts who are involved as decision-makers in the case. For instance, the Commerce Act 1986 provides that lay members must sit on appeals from Commerce Commission decisions (ss 77, 78). And, of course, there are tribunals which are composed of experts, for example the Indecent Publications Tribunal. Discussion of the role of these experts is beyond the scope of this paper.

104 Under Part XIA of the High Court Rules (inserted in 1990 by SR 1990/187), which replaced and partially changed the Patent Rules 1956 (SR 1956/183).

however, think that a rule compelling discussion in all cases is desirable. Particularly in a criminal case, it might involve the experts in matters which are beyond their brief. Such a rule could, in effect, enable an expert witness rather than the party to control the case. Nevertheless we emphasise that on many occasions discussion between the expert witnesses will be in the interests of the parties and the court. Pre-trial discussions can also be encouraged by use of the cost sanction in cases where the trial has been lengthened by an unreasonable failure to confer and identify issues.

Civil cases

101 In civil cases we consider that parties ought to give notice to each other in advance of trial of the expert evidence they intend to call.¹⁰⁵ The notice would include the name, address and qualifications of the proposed witness, and a statement of the substance of the proposed evidence. We envisage that this requirement would commonly be satisfied by the exchange of expert reports, but disclosure of the actual report would not be obligatory. Notice should be mandatory with the court having power to exclude unnotified evidence. There would, however, also need to be a power in the court to waive or modify the requirement for notice (with an award of costs if appropriate) for example, where failure to give notice caused no substantial prejudice (see s 5 of the draft code provisions on opinion and expert evidence and paras C18 and C19 of the commentary).

102 Depending on the circumstances the above proposal may, to a limited extent, affect some of the traditional rules of privilege.¹⁰⁶ However, as the evidence is to be called at trial, prior disclosure does not involve revealing information which would otherwise remain confidential: the evidence is to be revealed in any event, it is simply revealed earlier. If the rational ascertainment of facts is enhanced by prior disclosure of evidence which is to be introduced at the trial, we do not see that privilege should stand in the way of this goal. We also note that at present the privilege is limited to communications between solicitor and expert and to some of the communications between client and expert. These categories may include an expert's report, but do not include the expert's own recollection of work done. The basic rule is that there is no property in a witness and the expert can be compelled under subpoena for either party to give evidence, including evidence of an expert opinion on the matter before the court.¹⁰⁷

105 At present r 438 of the High Court Rules allows the court to issue directions concerning exchange of expert evidence: see *McGechan on Procedure* and the cases cited there, especially *Douche v Brinkman* (1989) 1 PRNZ 650. Exchange of expert briefs is standard in commercial list cases: r 446J and *Practice Note* [1987] 2 NZLR 632, 633.

106 As to the role of privilege under r 438 of the High Court Rules: see *McGechan on Procedure*; *MacLean Freighters v Dodson* (1987) 1 PRNZ 531; and *Esprit Marketing v Dealers Guide* (1987) 1 PRNZ 535.

107 *Harmony Shipping Co SA v Davis* [1979] 3 All ER 177. For the position with respect to privilege and experts see: *Cross* (Mathieson) 239, 250-51, 254, 261-269; May, *Criminal Evidence* (2 ed, 1990) paras 7.40-7.42, 10.21; Garrow and McGechan, *The Law of Evidence* (7 ed) 263-268, 269-272.

Criminal cases

103 As we have already stated in our report, *Criminal Procedure: Part One, Disclosure and Committal*¹⁰⁸ we consider that the prosecution in a criminal case should be under an obligation to disclose expert evidence. This obligation arises from the duty of the prosecution to be fair to the defence and is supported by the clear enhancement of the truth-finding function which prior disclosure achieves. In the case of expert evidence from DSIR scientists there is also an established practice (issued as a police instruction and approved by the Law Society as guidance for lawyers) which regulates when and how the prosecution should supply such evidence to the defence.¹⁰⁹

104 In relation to prosecution disclosure of expert evidence, the relationship between an evidence code requirement to give notice of expert evidence and any regime for criminal disclosure needs to be considered. Our *Disclosure* report¹¹⁰ recommends a disclosure regime which recognises that there may be a very limited number of occasions when the prosecution ought not to disclose a witness's evidence (or part of the evidence), for instance, when disclosure would endanger the safety of a witness. We consider, however, that it will be rare for the prosecution to have grounds for not disclosing the evidence of expert witnesses, and, should such a case arise, it can readily be dealt with under the provision in our code which enables parties to apply to the court to set a timetable or impose conditions concerning disclosure.¹¹¹

105 In our *Disclosure* report we also recommended that the defence should be under an obligation to disclose expert evidence.¹¹² That view has attracted criticism from some members of the criminal defence bar. They contend that the accused, in revealing an intention to call expert witnesses and details of what the expert may say, is giving the prosecution advance information about the defence which impinges upon the right of silence. They also argue that, even if no comment is able to be made on a decision to abandon calling the expert evidence, the fact that notice has been given will constitute a de facto fetter on the defence's freedom to change the basis of the defence once the prosecution's case is put. The reason for this is that the prosecution will have presented its case and cross-examined on the basis that expert evidence will be offered.

106 On the other hand, we consider that there is little doubt that pre-trial exchange of expert evidence will appreciably enhance the quality of the information before the court at trial, and reduce the time taken to identify

108 (NZLC R14, 1990) Chapter IV.

109 New Zealand Law Society, *Rules of Professional Conduct for Barristers and Solicitors*, Appendix II.

110 (NZLC R14, 1991) paras 77-85, and draft ss 185F-185J (at 56-59).

111 Draft s 5(2)(b)(ii).

112 (NZLC 214, 1990) paras 109-110, and draft s 185M (at 61).

precisely which parts of the expert evidence are in dispute. It may also on occasion prevent the prosecution being surprised by the introduction of expert evidence, though in practice this does not often seem to be a major source of difficulty.

107 We note that the desirability of defence disclosure of expert evidence was accepted by the Criminal Law Reform Committee in their 1986 report on *Discovery in Criminal Cases*.¹¹³ We also note that in England, in criminal proceedings brought in the Crown Court since 1987,¹¹⁴ the defence and the prosecution are obliged to disclose all expert evidence (fact and opinion). The obligation is to provide a statement of the finding or opinion, and an opportunity for the other party to examine the material on which it is based. Evidence which is undisclosed is excluded, but may be admitted by leave. Leave may be granted to the defence when it only recently obtained the evidence, but it is unlikely to be granted if the defence had the evidence for some time and attempts to surprise the prosecution.¹¹⁵ The English provisions for disclosure do not in practice seem to have caused any problems.

108 At this stage we remain of the view that pre-trial defence disclosure of expert evidence is desirable. Such a requirement is a minimal inroad into the right of silence, and in practice is not likely to result in unfair prejudice to an accused, particularly if no comment is able to be made should an accused give notice but subsequently decide not to call expert evidence. There should also be a power, where disclosure is not made, for the court to permit the expert evidence to be called. A similar regime at present applies to alibi evidence (s 367A Crimes Act 1961) and appears to have worked well in practice, though an alibi defence is rarely excluded where there is no disclosure. We also note that an alternative sanction, if the possibility of exclusion is thought to be too onerous or ineffective, is for the judge in an appropriate case to make a fair and balanced comment to the jury on the failure to disclose the expert evidence.

109 The proposals made in this discussion paper concerning notice of expert evidence differ slightly from the proposals made in our *Disclosure* report. In due course, therefore, it will be necessary either to make small amendments to ensure that there is no conflict, or alternatively to provide that the notice proposals in this discussion paper apply only to civil cases. In the interests of simplicity we would prefer the rules concerning notice of expert evidence to be the same, or substantially similar, in both civil and criminal cases.

113 See paras 192-201.

114 Police and Criminal Evidence Act 1984, s 81; Crown Court (Advance Notice of Expert Evidence) Rules 1987 (SI 1987/716); Zander, *Police and Criminal Evidence Act 1984* (2 ed, 1990) at 209-210.

115 See May, *Criminal Evidence* (2 ed, 1990) 147; Hodgkinson, *Expert Evidence: Law and Practice* (1990) 56-59.

PRESENTATION OF EXPERT EVIDENCE

Examination of expert witnesses

110 In our view it is not always appropriate to deal with expert evidence in chief by way of question and answer. *R v Titi* [1990] 1 NZLR 540, 548 establishes that in a criminal case expert evidence for the prosecution must be balanced and must reveal all the relevant information which the expert has discovered (whether it supports the prosecution or the defence) and that there is a duty on prosecuting counsel to ensure this. This rule is supported in the Forensic Scientists' code of ethics which imposes an ethical duty to give a balanced opinion. Other expert witnesses have similar ethical responsibilities or a professional ethos of independence and impartiality. This independence can be fostered by the way in which evidence in chief is presented.

111 Responding to questions posed by counsel in examination in chief is not always an efficient mode of eliciting information. Nor does it always allow for the need to obtain balanced evidence from an expert. Moreover, in complex matters it is often difficult for the expert witness to express the evidence accurately and with all appropriate qualifications. Reading a written report, or simply giving an oral narration of the facts relied upon and the consequent opinion, will often be better than answering a detailed series of questions. While we do not think an expert should, when giving evidence in chief, have an unfettered right to read from a report, consideration should always be given to the best way of presenting the evidence in a given case. We therefore consider that the judge should have a discretion to permit whatever mode of presentation of evidence in chief best suits the particular case, whether civil or criminal.¹¹⁶ Cross-examination can then be used to elicit further information, question assumptions or put contrary evidence or opinions to the witness. These modes of presenting evidence are at present widely permitted under the court's inherent power and, in civil cases, in terms of r 438(4)(i) of the High Court Rules. The provisions of an evidence code should maintain this flexibility for all trials.

112 In the United States some courts have used a "panel" method of questioning experts. Using this method, all the experts in the case are sworn as witnesses at the same time and sit round a table with counsel and the judge and discuss the case. Judge Weinstein has said:

In bench trials, I from time to time use a technique of swearing all the experts, seating them at the table together with counsel and the judge and engaging in recorded colloquy under court direction. These discussions have sometimes produced a more reasonable attitude by the experts and considerable narrowing of disagreement among them.¹¹⁷

116 See Phillips, "The Calling of Expert Evidence in Chief: A New Approach" (1989) 63 Aust LJ 545.

117 Elliot, above note 98, (1989) 69 Boston University LR 587, 504 note 78.

This process would not be appropriate in a jury trial (and it may well be that the same advantages can be achieved by pre-trial discussions between the experts: see para 100), but expert witnesses consulted by us consider that the procedure might be of assistance in some judge-alone trials.

Non-verbal evidence

113 Expert evidence will on occasion be complicated and difficult to understand for a jury or judge unfamiliar with the area. Experts ought therefore to be able to make use of whatever aids are necessary to enable their evidence to be presented in a way which is easy to understand. We consider that they should be able to use pictures, diagrams, videotapes, films, computer simulations or any other aid which would make the evidence clearer. The obvious constraint on this is that the evidence must be accurate and not misleading. The judge should have control over this and have the power to exclude unsatisfactory presentations. Since there may be a common law rule which requires that "charts" or visual aids can only be used to summarise evidence given in other ways,¹¹⁸ the code should make it clear that any such rule is abrogated.

CONCLUSION

114 The use of court-appointed experts and better procedures for the exchange and presentation of expert evidence will increase the range and quality of information before the court. There are also considerable efficiency gains to be made if the issues and any substantial areas of disagreement are ascertained as far as possible before trial.

118 *Cross* (Mathieson) 497; see *R v Menzies* [1982] 1 NZLR 40, 49.

Questions:

- 9 Should the court be empowered as a matter of general trial procedure to appoint expert witnesses? Under what circumstances should the court appoint an expert witness? In criminal cases should the appointment of a court expert require the consent of the defendant?
- 10 Should the parties be obliged to notify each other of their expert evidence? When should they have to notify? How much of the detail of the evidence should they have to notify? Should the notice requirements apply to the defence in criminal cases? What sanction should be applied if the evidence is not notified (for example, exclusion, comment, costs awards)?
- 11 How should experts give evidence? Subject to the direction of the court, should they be able to read a written report or give an oral narration of their evidence? Should they likewise be able to use visual aids and other aids to communication?

IX

Interlocutory Proceedings

115 At present r 252 of the High Court Rules provides, in respect of interlocutory applications:

where the application affects the party applying only or where the interests of no other party can be affected thereby, or in a routine matter, or where the interests of justice so require, the Court may accept statements of belief in an affidavit in which the grounds of such belief are given.

In terms of this provision a party may offer both hearsay and opinion evidence in an affidavit in an interlocutory application. The Commission in its draft hearsay provisions has continued and widened this provision, proposing that hearsay evidence should be admitted in all interlocutory proceedings, provided the party offering the hearsay also offers evidence of its source. Evidence of the source of the hearsay helps protect the integrity of fact-finding at the interlocutory stage by providing the court with some background to assist in determining the reliability of the evidence.

116 On a similar basis, the Commission tentatively proposes that opinion evidence which is offered in interlocutory proceedings should be admissible, with the protection that the party offering the opinion must also offer evidence of the grounds upon which the opinion is held.

117 Interlocutory applications often concern both legal and factual issues, and experience has shown that for reasons of cost and efficiency some relaxation of strict evidential rules is essential. This can be of particular importance where there is real urgency, for instance in an application for an interim injunction in a case concerning intellectual property. In such a proceeding opinion evidence will often be required, but parties may find it very difficult to obtain with the requisite speed properly qualified expert opinion. In that situation lay opinion, coupled with supporting evidence concerning the grounds of the opinion, may be helpful to the court and a sufficient basis for interim relief.

118 We are conscious, however, that many interlocutory proceedings are of considerable importance and may even be dispositive of the whole case. Moreover, the draft rule which we propose permits parties to offer opinion evidence in all circumstances (and in both civil and criminal interlocutory proceedings) provided they also offer evidence of the grounds upon which the opinion is held. The proposed rule is, therefore, wider than the existing High

Court rule, and in particular does not require the party offering the opinion to establish that admission of the evidence is in "the interests of justice".

119 Nevertheless our provisional conclusion is that the proposed rule will not cause difficulties. We reach that conclusion primarily because the appropriate weight to be given to the opinion evidence will be for the court to determine. As a result parties will wish, wherever practicable, to tender convincing and, therefore, properly qualified opinion evidence. We, however, specifically seek comment on whether it is desirable to allow such a substantial relaxation of the opinion rule in interlocutory proceedings or whether it would be preferable to retain some greater control on the part of the court by way of a provision similar to the present r 252 of the High Court Rules.

Questions:

- 12 Should all opinion evidence offered in interlocutory proceedings be admissible as long as the party offering the evidence also offers evidence of the grounds on which the evidence is based? Or should a rule similar to the present r 252 of the High Court Rules be retained?

Draft Early Sections for an Evidence Code

PART 1 PURPOSES

1 Purposes

The purposes of this Code are to:

- (a) promote the rational ascertainment of facts in proceedings; and
- (b) help promote fairness to parties and witnesses in proceedings and to all persons concerned in the investigation of criminal offences; and
- (c) help secure rights of confidentiality and other important public and social interests; and
- (d) help promote the expeditious determination of proceedings and the elimination of unjustifiable expense.

PART 2 GENERAL PRINCIPLES

2 Fundamental principle - relevant evidence is admissible

- (1) All relevant evidence is admissible in proceedings except evidence that is excluded in accordance with this Code or any other Act.
- (2) Evidence that is not relevant is not admissible in proceedings.
- (3) Evidence is relevant for the purposes of this Code if it has a tendency to prove or disprove a fact that is of consequence to the determination of a proceeding.

3 General exclusion

In any proceeding, the court shall exclude evidence if its probative value is outweighed by the danger that the evidence may:

- (a) have an unfairly prejudicial effect; or
- (b) confuse the issues; or
- (c) mislead the court or jury; or
- (d) result in unjustifiable consumption of time; or
- (e) result in unjustifiable expense.

Draft Opinion Evidence and Expert Evidence Sections for an Evidence Code

PART 3 ADMISSIBILITY RULES

Division 2: Opinion Evidence and Expert Evidence

1 Definitions

In this Division

expert means a person who has specialised knowledge or skill based on training, study or experience;

expert evidence means evidence offered by and based on the specialised knowledge or skill of an expert and includes evidence given in the form of an opinion;

opinion evidence means an opinion offered in evidence to prove or disprove any fact about which the opinion is expressed.

2 Opinion rule

Opinion evidence is not admissible in a proceeding except as provided by sections 3 and 4.

3 Admissibility of non-expert opinion evidence¹¹⁹

A witness may give opinion evidence in a proceeding if the opinion evidence will help the witness to communicate, or the court or jury to understand, what the witness saw, heard or otherwise experienced.

119 An alternative draft of this section is suggested at para 32 of the discussion paper.

4 Admissibility of expert opinion evidence

Subject to section 5, a witness may give expert evidence that is opinion evidence in a proceeding if that opinion evidence will help the court or jury to understand other evidence in the proceeding or to ascertain any fact that is of consequence to the determination of the proceeding.

5 Admissibility, notice and disclosure of expert evidence

- (1) Expert evidence, whether or not opinion evidence, is not admissible in a proceeding unless
 - (a) the party who proposes to offer the expert evidence gives notice in writing of that proposal to every other party to the proceeding except any party who has waived the requirement to give notice; or
 - (b) under subsection (3), the court dispenses with the requirement to give the notice referred to in paragraph (a).
- (2) A notice under subsection (1) must
 - (a) include the name, address and qualifications of the proposed witness and a statement of the substance of the proposed evidence; and
 - (b) be given
 - (i) sufficiently before the hearing to provide all the other parties to the proceeding with a fair opportunity to prepare to meet the evidence; or
 - (ii) within such time, whether before or after the commencement of the hearing, as the court may allow and subject to any conditions that the court may impose.
- (3) The court may dispense with the requirement to give notice under subsection (1) if
 - (a) no party is substantially prejudiced by the failure to give notice; or
 - (b) giving notice was not reasonably practicable in the circumstances; or
 - (c) at the time notice should have been given in compliance with subsection (2)(b)(i), the necessity to offer expert evidence was not reasonably foreseeable by the party concerned.
- (4) This section does not apply to evidence given by an expert appointed by the court under section 6.

6 Court may appoint expert

- (1) The court may appoint an expert to give evidence in a proceeding if
 - (a) the court considers that the evidence will help the court or jury to understand other evidence in the proceeding or to ascertain any fact that is of consequence to the determination of the proceeding; and
 - (b) in a criminal proceeding, each defendant consents to the appointment and concurs in the choice of any expert whose evidence the court considers may be of consequence in relation to the case against that defendant.
- (2) The person to be appointed by the court as the court expert and the instructions to be given by the court to the court expert must, if possible, be agreed upon by all the parties to the proceeding, but, subject to subsection (1)(b), the court shall determine any matter on which the parties do not agree.
- (3) The court must give the expert written instructions.
- (4) The expert must give a written report to the court and to each party to the proceeding.
- (5) If called by the court or by any party, the expert must attend the hearing and may be examined by the court and cross-examined by each party to the proceeding.
- (6) An expert appointed by the court is entitled to reasonable compensation in an amount determined by the court and paid
 - (a) in a criminal proceeding, or in a civil proceeding where the public interest so requires, from funds appropriated by Parliament for the purpose;
 - (b) in any other civil proceeding, by the parties to the proceeding in such proportions as the court directs.
- (7) The appointment of a court expert in a proceeding does not affect the right of a party to call other expert witnesses.

7 Manner of giving expert evidence

- (1) Subject to the direction of the court, an expert may give expert evidence in the manner that most clearly communicates the evidence to the court or jury, including narrative presentation, a written report, the use of diagrams or charts, a practical demonstration or a video or computer presentation.
- (2) Subsection (1) does not affect the rights of parties to examine or cross-examine an expert.

8 Ultimate issue and common knowledge rules abolished

Opinion evidence is not inadmissible by reason only that it is about

- (a) an ultimate issue to be determined in a proceeding; or
- (b) a matter of common knowledge.

9 Opinion evidence in interlocutory proceedings

Section 2 does not have effect to exclude opinion evidence in an interlocutory proceeding if the party who offers it also offers evidence of the grounds on which the opinion is held.

Commentary

Section 1

C1 *Section 1* defines three terms.

C2 The definition of "expert" is a codification of the common law rule that an expert must be a person qualified by specialised knowledge or skill based on training, study or experience. The qualification requirement is the essential basis for the admission of expert opinion evidence. As with the common law rule, it is intended to be wide and flexible. It is considered in paras 35-37 of the discussion paper.

C3 The section also defines "expert evidence". This is evidence offered by a properly qualified expert which is within that expert's area of expertise. Expert evidence may consist of fact or opinion, or a mixture of both.

C4 The final definition is that of "opinion evidence". This definition draws a distinction between opinion evidence which is offered to prove or disprove any fact about which the opinion is expressed, and opinion evidence which is offered for other purposes, for example, to prove a witness's state of mind. This is a similar distinction to the one made in relation to hearsay. Strictly speaking it may be unnecessary to define opinion evidence to exclude evidence relevant to issues such as state of mind (since arguably this evidence will always be factual), but we have thought it preferable to make the distinction clear.

C5 Absent from the definition is any attempt to draw a boundary between fact and opinion. We consider that an attempt to express the boundary in legislation would be create more problems than it would solve. The court will make the distinction in a practical way as cases arise.

Section 2

C6 *Section 2* is the basic rule excluding opinion evidence. Opinion evidence is not admissible unless one of the exceptions in ss 3 and 4 apply. The aim is to prevent the admission of unsatisfactory opinion evidence and to avoid the court hearing evidence which is simply a waste of time. These rationales are set out in detail in Chapter III of the discussion paper.

Section 3

C7 *Section 3* is the exception to the opinion rule concerning opinion evidence from non-expert witnesses. Under this provision there are two requirements for the admission of such evidence. First, the opinion must be based on what the witness saw, heard or otherwise experienced - this is intended to cover anything experienced or perceived by witnesses with any of their senses. Secondly, giving opinion evidence must help the witness to communicate or the court or jury to understand the evidence of the witness. Thus opinion evidence will be admissible when it adds to the information before the court or jury, or allows the information to be communicated more clearly. The section is considered in detail in Chapter IV of the discussion paper. An alternative draft section is also suggested there (see para 32).

C8 Although headed "non-expert opinion evidence", this section covers the evidence of all witnesses, including experts. The reason for this is that a witness called primarily to give expert opinion evidence (which must satisfy the requirements of s 4) may also give non-expert opinion evidence - provided that it meets the requirements of s 3.

Section 4

C9 *Section 4* is the exception to the opinion rule covering expert opinion evidence. In contrast to the procedural rules in section 5, this section only applies to expert *opinion* evidence (by definition factual evidence cannot be ruled inadmissible on the basis of the opinion rule).

C10 In order to comply with this section, evidence must be from a qualified expert (as defined in s 1), the opinion must be expert evidence (also defined in s 1), and it must be helpful to the court or jury. The first two requirements form the qualification rule and are discussed above. The last requirement of helpfulness is new. It is intended to replace the common law rules which exclude expert opinion evidence (mainly the common knowledge rule and the ultimate issue rule) with a more rational test which assesses the reliability and value of the expert opinion on its merits. It will function as an *additional* safeguard, supplementing the qualification requirement and will exclude opinion evidence which comes from a properly qualified expert but is unsatisfactory for other reasons. A variety of factors underlie the helpfulness test and are dealt with in the discussion paper at paras 61 - 66.

C11 As mentioned in the discussion paper, the helpfulness test is proposed as one of two alternatives, the other option being to rely on the qualification requirement coupled with the general exclusionary power in s 4 of Part 2 of the code (reprinted above).

C12 Disputes concerning the admissibility of opinion evidence will often need to be resolved during the course of trial. The code will therefore need to include a rule concerning conditional admissibility in order to enable the judge to make

a preliminary ruling on admissibility subject to later revision in the light of all the circumstances. We anticipate including such a provision in the section of the code dealing with the respective roles of the judge and jury.¹²⁰

C13 The section is expressed to be subject to s 5. Thus, in order for expert opinion evidence to be admissible it must also comply with the procedural requirements set out in s 5.

Section 5

C14 *Section 5(1)* provides that expert evidence (whether of fact or opinion) is not admissible unless notice of the evidence is given, or the requirement to give notice is waived by a party (under para (a)), or the court dispenses with notice (under para (b) and subs (3)). This section applies to both civil and criminal cases and is considered in paras 99-109 of the discussion paper.

C15 Several issues arise concerning the relationship between s 5 and the pre-trial disclosure regime proposed for criminal proceedings in our report *Criminal Procedure: Part One, Disclosure and Committal*. These issues are addressed in paras 104, 105 and 109 of the discussion paper.

C16 *Section 5(2)(a)* sets out what must be disclosed in the notice required by subsections (1) and (2). The contents of the notice must include the name, address, and qualifications of the proposed witness, and a statement of the substance of the proposed evidence. Such a statement will at least disclose the conclusions reached by the expert and the grounds for those conclusions. As is stated in the discussion paper, we anticipate that parties will normally comply with this provision by providing each other with copies of the reports of expert witnesses. If this is not considered desirable (because of the nature of the report or its contents) or if there is no written report, then the party may provide a statement of the substance of the evidence. Since one of the rationales for enforcing pre-trial disclosure of expert opinion evidence is to enable each party fully to investigate and test the others' expert evidence, the disclosure which is made under this section must be sufficient to achieve this objective.

C17 *Section 5(2)(b)* specifies when the evidence must be disclosed. No particular time period is prescribed; the evidence must be disclosed sufficiently before the hearing to provide all the parties with a fair opportunity to prepare. As an alternative parties may apply to the court for directions under subpara (b)(ii), which will allow the court, for example, to set a timetable or to impose conditions concerning disclosure. These conditions could include directions specifying what evidence should be disclosed and in what form. Directions could also be given with the object of identifying and narrowing the issues. We anticipate that parties will endeavour to agree on disclosure arrangements whenever possible.

120 See above para 73, and see Law Commission *Evidence Law: Codification* (NZLC PP 14, 1991) para C9.

C18 *Section 5(3)* permits the court to dispense with notice and allow the evidence to be admitted if no party is substantially prejudiced by the failure to give notice, if giving notice was not reasonably practicable, or if, at the time notice should have been given, the necessity to offer expert evidence was not reasonably foreseeable. It is envisaged that the power to dispense with notice will be sparingly used.

C19 Possible examples of when notice will be dispensed with are:

- in terms of *paragraph (a)* there may be no substantial prejudice when the evidence is comparatively unimportant or very simple so as not to require a great deal of investigation; alternatively, the court may be able to grant a brief adjournment to allow the other party to investigate the evidence;
- in terms of *paragraph (b)* notice may not be reasonably practicable when the expert witness for a party at a late stage discovers new information which could not reasonably have been ascertained earlier (and even then it may still be possible for the court to issue directions under subs (2)(b)(ii) for disclosure to be made during the course of the hearing);
- in terms of *paragraph (c)* notice may be dispensed with if a party has not sought expert assistance because the need is not apparent until the case has reached hearing stage (and, again, it may still be possible for the court to issue directions under subs (2)(b)(ii)).

Section 6

C20 *Section 6* governs the appointment of experts by the court. It allows the court to appoint an expert to give evidence, whether of fact or opinion, in both civil and criminal cases if the court considers the evidence will help the court or jury to understand other evidence in the proceeding or ascertain any fact that is of consequence to the determination of the proceeding. In a criminal proceeding each defendant whose case may be affected by the evidence must consent to the appointment and concur in the choice of the expert (the reasons for this requirement in criminal proceedings are referred to at para 97 of the discussion paper).

C21 *Section 6(2)* provides that the appointment and instruction of the court expert is ultimately under the control of the court, though these matters should, where possible, be agreed to by the parties. We anticipate that in many cases the court will indicate to the parties that a court expert is to be appointed and leave the parties to suggest, for the court's approval, an expert and instructions on which they agree (taking into account any limits indicated by the judge).

C22 *Section 6(3) - (5)* specify how the court expert is to be instructed, and how the court expert should report to the court and be examined.

C23 *Section 6(5)* provides for payment of court experts. Payment is dealt with in civil cases primarily as a matter of costs, though where the public interest requires the court may order that the state should pay. One reason which renders it necessary to make provision for payment by the state occurs when one or more of the parties is legally aided. Under sections 86 and 87 of the Legal Services Act 1991 the court cannot order costs against the legal aid fund, and is limited in the costs it can award against a legally aided party.¹²¹ It follows that, in a case where all parties are legally aided, there is no ability to compensate a court expert if the court cannot order costs against the state. Likewise, in cases where only one party is legally aided, the court would be forced to order costs, perhaps unjustly, against the party or parties who are not legally aided.¹²²

C24 In criminal proceeding the costs of a court expert will be paid by the state (which would in any case pay for experts called by the prosecution or by legally aided defendants).

Section 7

C25 *Section 7(1)* permits expert witnesses, subject to the direction of the court, to give evidence in the way which is most convenient in each case. It allows experts to give evidence by way of narrative presentation, a written report, or the use of diagrams or charts, a practical demonstration or a video or computer presentation. As the law stands it is probably within the inherent power of the court to permit experts to give evidence in any appropriate way. Rule 438(4)(i) of the High Court Rules also enables an application to be made for directions regarding the evidence of experts in civil cases. Section 7 is, however, inserted to make the position absolutely clear. In terms of the section, the court retains the power to control the manner in which the testimony is presented in order to prevent evidence being given in a misleading or inappropriate way. For the sake of clarity, *subsection (2)* provides that parties retain the right to examine and cross-examine the expert witness.

C26 The provisions of s 7 are at present limited to expert witnesses. However, all witnesses should be able to give their testimony in the manner which most clearly communicates it to the court or jury. It is therefore envisaged that s 7 ultimately will apply to all witnesses and be placed in another part of the code.

121 Section 86 Legal Services Act 1991. The court may, however, determine the amount of the costs a legally aided person would have paid (s 86), and the opponent may apply to the District Legal Services Committee to recover those costs (s 87). Such recovery is not automatic in terms of the section, and involves the Committee considering the financial needs of the applicant.

122 Compare s 99A Judicature Act 1908 (as inserted by the Judicature Amendment Act (No 2) 1985), which provides for the payment of an *amicus curiae* either by one or more of the parties or by the state.

Section 8

C27 *Section 8* formally abolishes the ultimate issue and the common knowledge rules. These rules would be impliedly abolished by the combination of the relevance rule (s 2 of Part 2 of the code) and s 4 of this division of the code. *Section 8* is, however, included for the sake of clarity.

Section 9

C28 *Section 9* provides, for reasons of efficiency and practicality, that the opinion rule does apply in interlocutory proceedings. The section is considered in Chapter IX of the discussion paper.

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